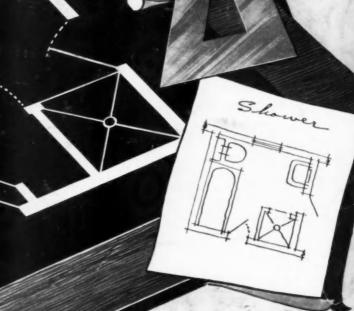
TECHNOLOGY DEPARTMENT

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WORLD'S GREATEST BUILDING PAPER PUBL LI RA



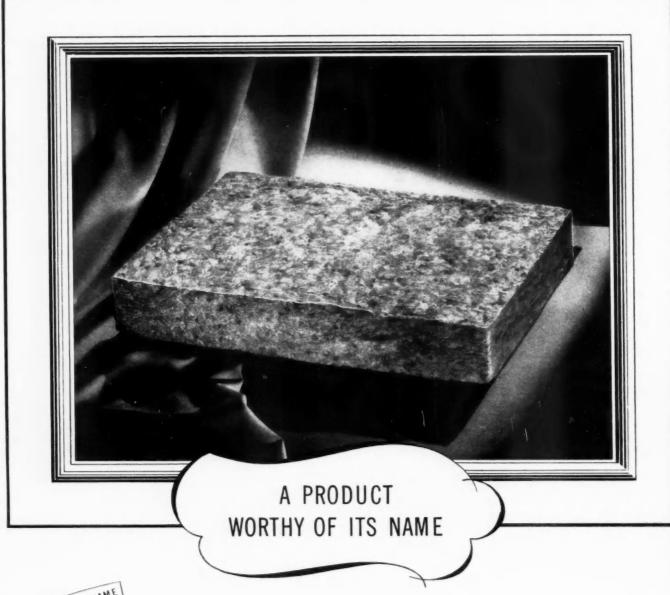


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... a feature that's sure to appeal!



This versatile Fenestra\* Steel Casement Window in every bedroom will show home buyers that you've built with an eye to their comfort. It features an easy-operating sill ventilator that guards against drafts by deflecting incoming air upward—and it sheds rain and snow outside.

It's an ideal bedroom window, a window with wide appeal . . . sure to put an extra touch of salability in your houses.

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WITH THESE ADVANTAGES:

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Convenient Screens...interchangeable, inside

Safer Cleaning . . . from inside the room Lower Upkeep . . . durability of steel

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# Over 50,000 Homes Dry Built with UPSON STRONG-BILT PANELS



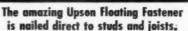
Carpenters did the whole job—saved weeks of precious building time—produced crackproof walls and ceilings of enduring beauty.

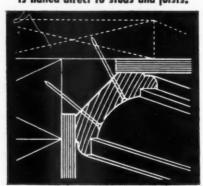
Remember—Upson Strong-Bilt is a **6-ply** panel laminated to an approximate ¾" thickness. It is strong, durable, and crackproof, yet light in weight—ideal for dry-built full-wall construction. Offers efficient insulating value.

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Upson 6 ply **Strong-Bilt** Panels—for new construction. Upson 5 ply **Kuver-Krak** Panels for re-covering cracked plaster. Upson 5 ply **Dubl-Thik Fibre Tile** Panels—for baths and kitchens. Upson **4 ply Panels**—for general use. Upson **Easy-Curve Board**—for displays and industrial uses.

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## AMERICAN BUILDER

Founded—1879

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You can be as modern as you like in planning basement recreation rooms when you choose American-Standard Heating Equipment. This inviting room owes a great deal of its charm to the trim OAKMONT Oil Boiler in the corner. But there's more than good styling to the Oakmont. Inside its smart Canyon Two-Tone Red jacket are all the sound engineering features needed to provide average sized homes with the carefree comfort and cleanliness of automatic oil heating.



# FIRST in heating and plumbing for styling and performance!

American-Standard products are designed and styled to stand out in any setting. And they are engineered and constructed to stand up under severe conditions of service. Made by the world's largest manufacturer of heating equipment and plumbing fixtures, they are backed by research and production facilities second to none! Yes, any way you look at them, they are as fine as money can

buy...yet they cost no more than others. That's another reason why more American homes have heating and plumbing by American-Standard than by any other single company. For the latest information about the complete American-Standard line, contact your Heating and Plumbing Contractor. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pennsylvania.

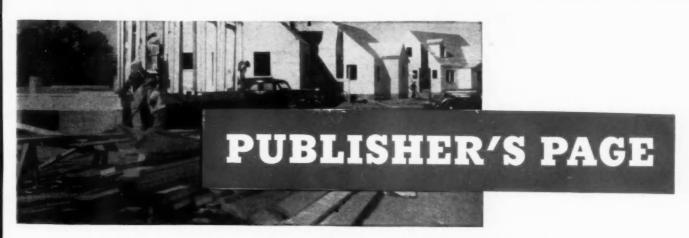
There's a sumptuous air to this bathroom, much of which comes from the striking American-Standard Plumbing Fixtures. Center of attraction is the NEO-ANGLE Bath, which, while only about four feet square, is actually roomier than most conventional baths. The graceful shelf-backed lavatory is the COMPAN-ION, and the water closet is the quiet, thorough-flushing MASTER ONE-PIECE. All are available in white and a choice of many colors.





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First in Heating and Plumbing

LOOK FOR THIS MARK OF MERIT—It identifies the world's largest line of Heating and Plumbing Products for every use . . . including Boilers, Warm Air Furnaces, Winter Air Conditioners, for all fuels—Water Heaters—Radiators, Convectors, Enclosures—Gas and Oil Burners—Heating Accessories—Bathtubs, Water Closets, Lavatories, Kitchen Sinks, Laundry Trays, Brass Trim—and specialized products for Hospitals, Hotels, Schools, Ships and Railroads.



### The Real Promoters of Socialism

ECENTLY when housing legislation was being considered in Congress, Chairman Wolcott of the House committee on Banking and Currency declared certain provisions of the Senate bill were "socialism", regardless of who favored them. He thus made a point which it is of great importance to keep in mind at the present time-viz., that whether a policy is socialistic depends not on who advocates it but on the character and tendency of the policy itself.

There would be no danger of socialism or communism in this or most other countries if they were promoted only by their avowed advocates. The real danger emanates from leaders and members of labor unions, leaders and members of both the Republican and Democratic parties, and even many business men, who promote policies tending to over-burden and undermine private enterprise, without realizing that that is the most effective way to promote socialism.

American Builder for fifteen years has been opposing certain New Deal policies. It has not opposed them because they have been supported mainly by persons calling themselves "Democrats", but because they have been socialistic. It will oppose socialistic policies with equal vigor in the future if supported mainly by persons in power in the government calling themselves "Republicans". A socialist or communist is no less truly a socialist or communist because he chooses

not to call himself one.

There is occurring throughout the world a gigantic struggle between the supporters of two entirely different economic systems-the system of private enterprise and the system of socialism, communism being merely socialism established and maintained by force. These two systems are wholly incompatible. Whoever or whatever weakens one of them promotes the other, and whoever or whatever promotes one of them weakens the other. Socialism is government ownership and management of property. Every increase of government ownership or management prevents at least an equivalent increase or causes an equivalent reduction of private ownership or management. There are many persons who profess opposition to socialism and call themselves Democrats or Republicans but who favor specific socialistic policies-such as government construction and ownership of "low-cost" housing, government construction and ownership of power plants such as those of the Tennessee Valley Authority, government construction and ownership of means of transportation such as the St. Lawrence "seaway". Every such policy requires government expenditures that burden private enterprise by increasing taxes on it and undermines private enterprise by using the taxes collected from it to subsidize competition with it. And every policy which burdens or undermines and weakens any part of American private enterprise promotes socialism in this country and throughout the world, because the American system of private enterprise is, whether for purposes of peace or war, the last important bulwark against socialism and communism still standing in the world.

Those who oppose every socialistic policy are called "reactionaries" by those who, while professing opposition to complete socialism or communism, call themselves "liberals" and support almost every specific socialistic policy that is proposed. These self-styled "liberals" who go about in the guise of Republicans and Democrats are much more numerous and of much better repute than avowed socialists and communists, and are, therefore, much more effective enemies of private enterprise and promoters of so-

Same O. Drum,



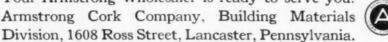
## An information service for your customers

**7** OUR retail showroom is an information center for people who are planning to build or remodel. It's good business to give those people the information they want. Your Armstrong Wholesaler is now offering a new service to make it easier for you to do it.

This new "information service" consists of a series of pocket-size booklets, completely illustrated with diagrams, drawings, and full-color pictures, and filled with the kind of information about products and building methods that your customers are asking questions about. There's an attractive metal rack to display these booklets neatly on wall or counter.

The booklets are of two types. Two of them are designed to offer the customer a range of ideas and information on "How to Build" and "How to Remodel." The other five give detailed information about the products of the Armstrong Line . . . what they are . . . how to use them . . . how to figure requirements. All of these colorful booklets help get your selling story across.

This information service is part of the continuing service of your Armstrong Wholesaler. New booklets will be added to your rack as they become available . . . keeping your "information service" up to date. Other selling aids are available, too. There's a bright new yard sign, an attractive Monowall display, new samples, a big new ad-mat book. Your Armstrong Wholesaler is ready to serve you. Armstrong Cork Company, Building Materials



# Armstrong's Building Materials



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NEW HOME

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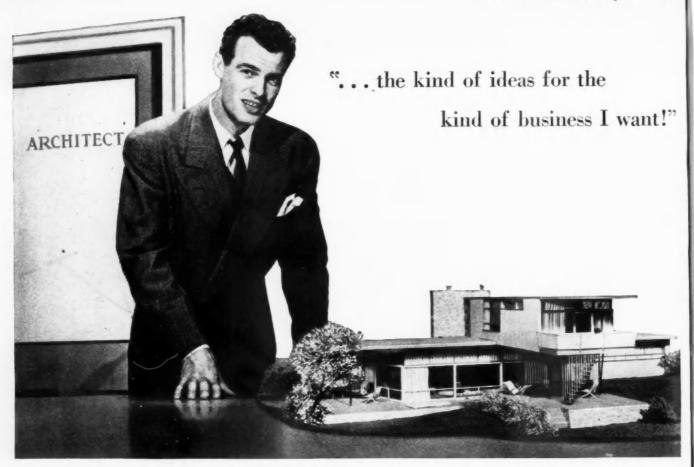
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# See The Ways Coleman Floor Furnaces HELP YOU BUILD A True Economy How



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By Eliminating Basement **Excavating Costs** 



### TRUE ECONOMY!

By Cutting Out Costly Ducts and Plumbing



### TRUE ECONOMY!

By Giving You More Livable Space

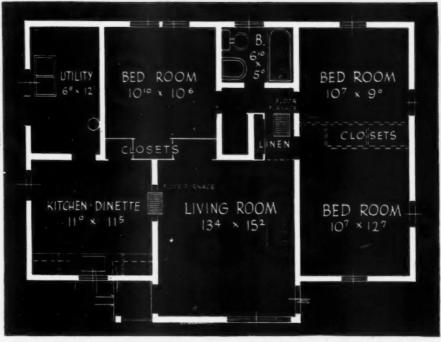


### "Practical - Miracle" Prize Winner Adapted to Coleman Floor Furnaces

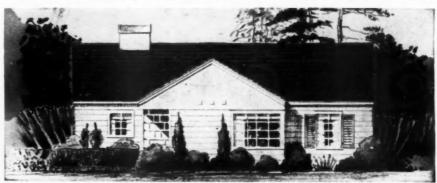
Floor plan at right shows March prize-winning "Practical Miracle" house, designed and built by Alex Bruscino (above) of Lakewood, Ohio. Note how perfectly Coleman Floor Furnaces fit in this plan.



Easy, Low-Cost Installation: On new construction two men can usually install a Coleman automatic floor furnace-gas, oil or LP-gas-in four to six hours. Compare that with other automatic-heat installation costs!



How Coleman Floor Furnaces Help Save \$300 to \$500 Over Conventional Heating: Figure it out for yourself - you know how much it costs you for each excavation. You know your costs for buying and installing the ordinary heating plant. Take excavation savings, duct savings, and reduce furnace installation costs down to just about ten man-hours of work. Add them up—and see why so many builders are standardizing on Coleman!



Coleman Equipped Houses sell faster: Coleman Furnaces are money savers for builders—they are money savers for home buyers. Coleman is a nationally known name accepted as a standard of quality in construction, in superior automatic heating performance in providing warm floors comfort, in fuel economy. That's why it's so easy to sell Coleman equipped homes. **NOW:** Let us tell you how Coleman gas, oil or LP Gas floor furnaces give you "true-economy." No obligation of course. Write now!

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Community Homes, features extensive use of glass block. All 601 homes in Bassett Park have glass block panels!

Robert Gerholz, President of Gerholz Community Homes, Flint, Michigan. With the Bassett Park project completed, Mr. Gerholz is currently developing Mott Park, another Flint subdivision. There are 270 homes planned or under construction. All will use glass block!

## Builds 871 post-war homes... and all feature glass block daylighting!

Insulux Glass Block helps sell houses. Many customers expect it in a new home.

Those are the findings of Robert Gerholz, noted Flint, Michigan builder. And Mr. Gerholz backs up his findings. In two developments, Bassett Park and Mott Park, he has used glass block paneling in each and every home. His 871 houses feature it extensively.

Customers like the combination of decorative value

plus functional utility they get in Insulux Glass Block. Strong, durable and attractive, it transmits daylight with privacy and provides good insulation. Insulux is available in a variety of face patterns and three standard sizes. It is easily installed, alone or in combination with inserts.

Clip coupon and mail today for informative booklet on residential applications for Insulux. It may pay you to learn more about this profitable building material.

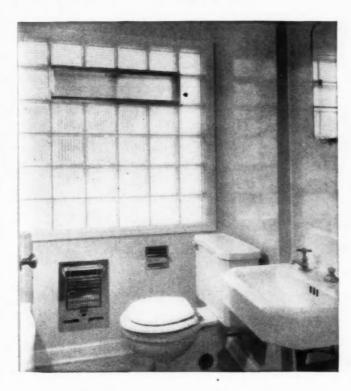
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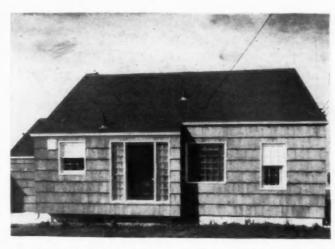
Typical Gerholz home in Mott Park. At the front of the house, Insulux paneling flanks picture window in living room. Here the use of Insulux Glass Block is largely decorative.



Interior view of living room, showing tasteful elegance afforded through the decorative use of Insulux Glass Block. Builders find treatments like this help sell new homes.



GREATLY EXPANDED PRODUCTION FACILITIES MEAN INSULUX IS NOW AVAILABLE FOR IM-



Rear view of Gerholz home, showing Insulux treatment of dining room picture window at left, bathroom at right. Insulux Glass Block is equally adaptable for kitchens, stairways, entrances.

A gleaming panel of Insulux Glass Block brings sunny daylight to this bathroom with no sacrifice of privacy. Insulating action of Insulux means warmth and comfort in winter, too.

MEDIATE DELIVERY IN LARGE OR SMALL LOTS.



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AMERICAN STRUCTURAL PRODUCTS COMPANY

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Gentlemen:

I am interested in the profits I can make with Insulux Glass Block. Please send me your booklet on residential applications, "Ideas for Brighter Homes."

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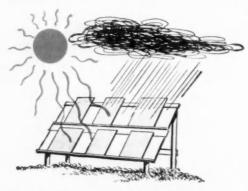
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### PRESPINE...Product of Science

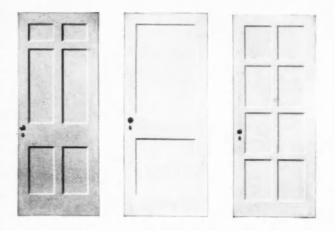
Again Curtis is first with a major contribution in the woodwork field! Again Curtis offers a product providing plus values in beauty and durability—at an economical price. It's Prespine—a Curtiscreated wood product combining many exclusive advantages when used in the production of Curtisdoors, kitchen units and other Curtis Woodwork.



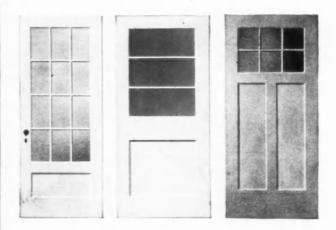
### **Proved by Grueling Tests**

No wood product has received more grueling tests than Prespine. It has been boiled and frozen—subjected to heavy impact—exposed to the weather for months—kept under conditions of high heat and humidity. In every test, Prespine shows that it has the superior quality and durability which Curtis standards require for the production of fine woodwork.

Study the features of Prespine—get full information on this remarkable new wood product. Then you'll know why Prespine is so rapidly making a place for itself in the woodwork world!



These illustrations show current use of Prespine Panels in Curtis interior and exterior doors. Prespine is an inherent part of these doors—just as it will be an inherent part of other Curtis Woodwork products.





# What Curtis Prespine offers YOU today...



### Beauty of surface...

Prespine has a hard, satin-smooth surface. When unfinished, it resembles, in color, the natural wood from which it is made.



### Takes any Finish...

The Prespine surface provides an excellent bond for paint. Prespine, too, takes any color of stain beautifully. With Prespine, there is no grain-raising—and nothing to cause discoloration of finishes. Edges provide a better surface to finish. Because Prespine is consistent in color and finishing qualities, it assures a pleasing job.



### Lifetime economy...

Economical in first cost, Prespine assures lifetime economy for the owners of Curtis Woodwork in which it is used. Here is a new product worthy of the 82-year old Curtis tradition of providing lasting value for the architect, builder, and home-owner.



### Lasting durability...

In the Curtis laboratory, Prespine has been boiled for hours—it has been soaked for weeks—it has been subjected to freezing and thawing—and every test has proved its amazing durability. Prespine has the strength to take heavy impact blows—won't mar or scratch readily—won't splinter or chip at the edges. It has superior bending strength, resists warping, shrinking and swelling.



# The Proved Advantages of Wood!

Remember, Prespine is a Wood product, with the advantages which wood has always offered. In Prespine, the chemical composition of wood has not been changed, and Prespine has approximately the same moisture content and color as wood.

Prespine is available only as used in the production of Curtis Woodwork.



CURTIS COMPANIES SERVICE BUREAU
AB-8P CURTIS BUILDING
CLINTON, IOWA

Gentlemen

I want to know more about Prespine as used in Curtis Woodwork. Please send me additional information.

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State

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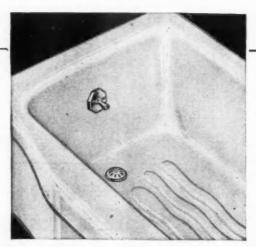


... obviously not a Briggs safety-bottom bathtub!

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No mistaking a Briggs Beautyware bathtub—because there's nothing like it in the business. It's die-formed steel. It's an easy-to-lift 110 pounds. It's leakproof at tub-wall line (thanks to an integral lip flange). It's superior in quality: every tub furnished in stainproof (acid resistant) porcelain enamel at no extra cost. To say nothing of its famous Safety-Bottom—safety hand grip—side-rim seat . . . greater level-bottom area! No wonder Briggs Beautyware—with its pace-setting design and moderate cost—is the best-to-be-had in plumbing fixtures today! Write now for new catalog featuring Briggs plumbing fixtures and Briggs brass. Briggs Manufacturing Co., 3025H Miller Ave., Detroit 11, Mich.

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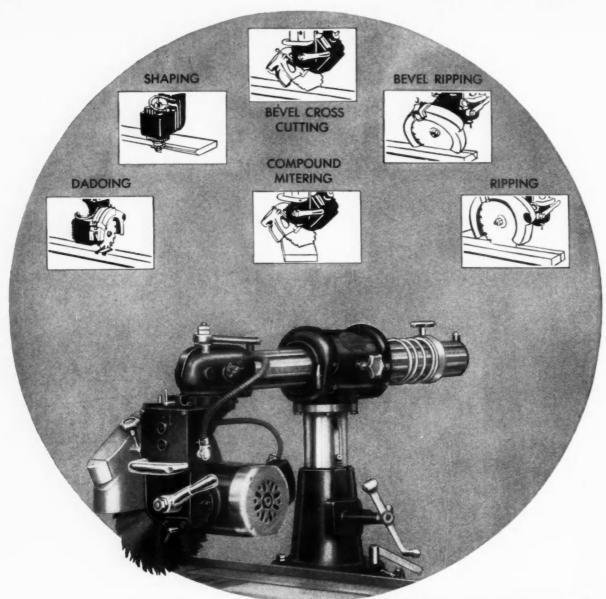
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All radial power saws make the same cuts. True, possibly. But Comets do these things as only Comets can; with flashing speed, extreme power and high accuracy. Moreover, they keep at it year after year without losing a whit of their triple-famed speed, power and accuracy. It is a matter of record that Comet

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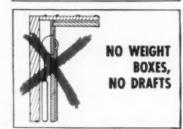
Pre-assembled ready-to-install windows, built by specialists, can save you time, labor, money on the job. You can save additional time and money and give your homes a plus value if these pre-assembled windows are equipped with Pullman Sash Balances. Pullman balances eliminate the need for weight boxes... make possible wider window areas... allow the use of narrow trim, or no trim at all.

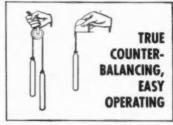
Another extra value gained by using Pullman balanced windows is complete owner satisfaction. Windows raise and lower effortlessly because there is a perfect balance between the spring tension and the sash. No straining or trying to lift the weight of the window against friction. Windows Pullman-balanced are draftless—perfectly weathertight. Insulation is butted up to the window frame. All are plus construction advantages. Yet they won't cost you, the builder, one extra cent.

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Ask your dealer for Pullman-balanced pre-assembled window units. Or for information write Pullman Manufacturing Corporation, 325 Hollenbeck Street, Rochester 5, N. Y.

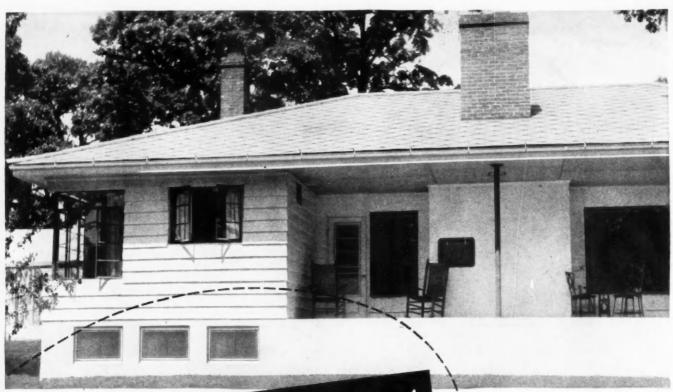












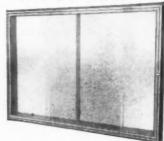
# New and Better too!

# Ceco Ceconomy Basement Window with combination Screen and Storm Window Unit

Here is a new Ceco product that offers the ultimate in economy and utility in basement windows—Ceco's Ceconomy Basement Window with combination screen and storm window unit. Here, in one group, is complete window protection for both winter and summer and, what is equally important, there is ease in installation, plus no screen storage problem. The screen is made to accommodate a glass panel insert, easily installed while the screen is in place. The storm panel insert comes complete with glass, rubber glazing seal, aluminum binder-edge frame and attaching clip and screws.



Outside view of Ceconomy Basement Window. It is easily installed, provides unusual economy. No fitting, trimming or painting. Cannot rot.



Here is the combination screen and storm window unit in place. In summer, a screen. In winter, a storm window with screen self-stored.

### CECO STEEL PRODUCTS CORPORATION

GENERAL OFFICES: 5701 W. 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities



Typical Ceco Products: residence casements, metal frame screens, aluminum storm windows, metal lath and accessories, steel joists.



In construction products CECO ENGINEERING makes the big difference

# **CH**\*keeps them comfortable

YES, CONVECTION HEATING WITH TUTTLE & BAILEY STANDARDIZED COPPER CONVECTORS... selected as the right combination for the 1500-unit Belleview Apartments at Fairfax, Virginia to meet the demands of efficiency and appearance.

### The reasons why are simple

Convection heating – as provided by Tuttle & Bailey – means constant, gentle circulation of room air, even temperatures from floor to ceiling... efficiency plus comfort!

All-copper T & B heating elements respond quickly to thermostat control, assure quick transmission of heat from boiler to rooms...fuel-cost savings!

Attractively designed T & B convectors harmonize with the most modern furnishings...trim appearance!

Important reasons to keep in mind when prospective home owners ask your advice on the right selection for better heating from better-looking equipment.

Architects
Allis & Petitord, Washington 2, D.C.
Registered Engineers
Andre Merie Associates
Washington, D.C.
Centractors
James Plumbing & Heating Co., Inc.
Alexandrin and Richmood, Yo.

Send today for a copy of Catalog C8...complete details for specifying and installing...write Tuttle & Bailey, Inc., New Britain, Conn.

ASK YOUR JOBBER TODAY

Standardized copper convectors

Amer

# FALL HOME AND HOME FURNISHINGS FESTIVAL

[ SEPT. 20 - OCT. 20 ]

# Sponsored by the CHICAGO TRIBUNE and the HOME AND HOME FURNISHINGS COUNCIL OF CHICAGOLAND composed of

AMERICAN FURNITURE MART
CHICAGO FLOOR COVERING ASSOCIATION
CHICAGO FURNITURE MANUFACTURERS ASSOCIATION
CHICAGO RETAIL FURNITURE ASSOCIATION
CHICAGO RETAIL MERCHANTS ASSOCIATION
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LAMP MANUFACTURERS ASSOCIATION
MANUFACTURERS AGENTS CLUB
MERCHANDISE MART
METROPOLITAN HOME BUILDERS ASSOCIATION
NATIONAL ASSOCIATION OF BEDDING MANUFACTURERS
NATIONAL RETAIL MERCHANTS ASSOCIATION
STATE STREET COUNCIL

A<sup>N</sup> industry-wide drive has been launched to make the period Sept. 20-Oct. 20 the greatest home and home furnishings month in the history of Chicago. This project grows out of the industry's promotion last fall to capitalize the buying interest generated by publication and exhibition of the winning designs in the Chicago Tribune's first \$26,250.00 Better Rooms competition.

Results were so successful that the industry this year has organized to build a greatly expanded program around the Chicago Tribune's second competition.

In July, the Tribune started publishing in full color this year's winning room designs. Sunday after Sunday, arresting presentations of fresh and interesting ideas in home furnishing and decoration again will focus the attention of more than 1,600,000 Sunday Tribune families on homes and everything that goes into them.

To convert this interest into action at the point of sale, Chicago stores again will display full-scale rooms built, furnished and decorated according to the winning 1948 designs.

In addition, the Metropolitan Home Builders

Association will open for one month's public inspection an impressive display of new homes on sites thruout Chicago and suburbs. Each of these homes will be furnished and decorated.

To launch the Festival, the Chicago Tribune will publish on Sunday, Sept. 19, a Home and Home Furnishings issue. Page after page of this issue will tell the up-to-date story of homes, home furnishings, appliances, building materials—everything that goes into a home and the construction and financing of homes.

### GET COMPLETE INFORMATION NOW!

To maintain momentum thruout the 31 days of the drive, this kick-off issue will be followed with a daily editorial program keyed to the specific aims of retailers and manufacturers.

For your share of the sales which the entire industry is now driving to make the greatest in Chicago's history, see that your Chicago promotion will be adequate to your special opportunities during the period Sept. 20–Oct. 20.

For complete information, consult P. C. Fulton, Manager, Retail advertising, Chicago Tribune, or your nearest Chicago Tribune representative.

# Chicago Tribune

THE WORLD'S GREATEST NEWSPAPER

May average net paid total circulation: Daily, over 980,000 - Sunday, over 1,600,000

1948.

"the best TRAFFIC BUILDER in my store" it forms a tougher, more durable film

## FREE Pol-mer-ik DISPLAY CARD AT THE CASH REGISTER OR WRAPPING COUNTER!

- Unusual profits can be produced by increasing the "traffic-sales" of Pol-mer-ik Linseed Oil in cans. Send for your free display today.
- \* INCREASE YOUR SALES
- \* INCREASE YOUR TURNOVER
- ★ INCREASE YOUR UNIT-OF-SALE

ARCHER-DANIELS-MIDLAND COMPANY

ROANOKE BUILDING

00

MINNEAPOLIS, MINNESOTA

ARCHER-DANIELS-MIDLAND CO. 680A Rounoke Building . Minneapolis, Minnesota

That free display looks good to me. Send it to:

Address

State

We purchase our oil from:

Americ

Heavier Gauge Steel Integral Wall Guard • The wall guard flange concealed behind the walltile or plaster prevents water from seeping down into the wall behind the tub.

• The heavier gauge steel used for AllianceWare bathtubs gives each tub the rigidity of sanitary ware weighing up to three times as much.

Acid-Resisting Enamel at no extra cost • All buyers of bathroom fixtures want this feature when they learn how it increases the life of the ware and makes cleaning easier.

Alliance Vare has all these features

Modern Styling and Lasting Beauty

 Lustrously beautiful and with glasshard surface, the attractive lines and gleaming appearance of AllianceWare immediately gain the approval of discriminating home buyers.

THE practical features of design and construction of AllianceWare appeal to builder and owner alike. Not only this, but when you install AllianceWare, you also give your home-buyers extra benefits of acid resistance, modern styling and lifetime beauty at no extra cost either to you or to them.

For complete details of AllianceWare, ask your plumbing contractor, or write us.

Easy to Handle and Install

With two-thirds less weight to handle, two men easily carry an Alliance-Ware tub. Lighter weight means an installation saving of several dollars.

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AllianceWare

ALLIANCEWARE, INC., Alliance, Ohio

Bathtubs • Lavatories • Sinks

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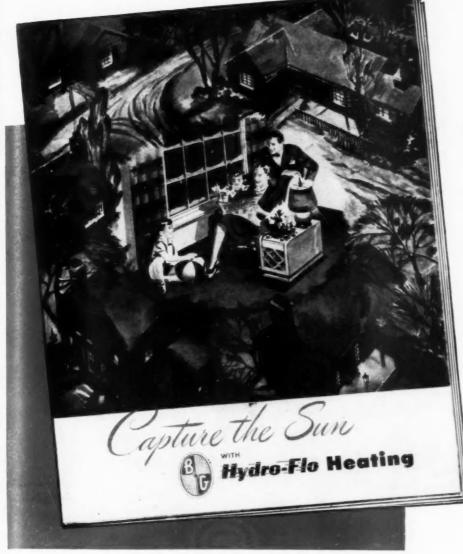
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Builders today are installing B & G Hydro-Flo Heating for the common sense reason that home buyers know of and want its unsurpassed comforts!

B & G Hydro-Flo Heating provides controlled radiant warmth... assures both economy of fuel and supreme comfort in any weather. This system of mechanically circulated hot water gives you a choice of radiators, baseboard units, convectors ... or that miracle of modern heating—completely concealed radiant panels! In any case, your homes will have the finest in automatic controlled winter warmth.

B & G Hydro-Flo Heating matches the heat supply to the weather—so exactly that from Fall to Spring indoor temperature is kept constantly at the comfort level. And not least, the Hydro-Flo System is amazingly economical. It always supplies just enough heat... never burns fuel needlessly.

You'll find the new booklet, "Capture the Sun", interesting and important reading. Illustrated in full color, it gives all the facts on B & G Hydro-Flo Heating.

B & G Hydro-Flo Heating is not for just a few. Everyone can enjoy its benefits because this great advance in living comfort comes within the cost limits of even modest homes.

Be sure to read this Free Booklet on

## B&G Hydro-Flo Heating

### Adaptable to any hot water boiler

The comfort-economy benefits of B&G Hydro-Flo Heating are achieved with remarkably simple, dependable equipment. The basic units are a B&G Booster Pump, B&G Flo-Control Valve and B&G Water Heater. The combined operation of these units produces a smoothly controlled flow of radiant heat, plus a year 'round supply of hot water for kitchen, laundry and bath. No separately fired water heater is needed.









Automatic Clothes Washers, Dishwashers, Showers all require loads of hot water...here's the low cost way to have it!

The B & G Hydro-Flo System furnishes all the hot water a home can use... all year 'round... at so low a cost it can be used unsparingly. Always ready—piping hot—day and night.



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Dept. AQ-11, Morton Grove, Illinois

Send at once your free booklet "Capture the Sun with B & G Hydro-Flo Heating."

Name\_

Address.

City\_\_\_\_\_\_State\_\_\_\_\_\_BREG. U. S. PAT. OFF.

# Mindowalls\*

The lofty sleeping wing of this beautiful new home is a great long WINDOWALL. Here Andersen Casement Window Units are alternated with Andersen Casement Picture Window Units, furnishing a sunny facade for three bedrooms and a bathroom.

While beautiful to look at, ANDERSEN WINDOWALLS perform their most useful function by acting simultaneously as weathertight, wall-like barriers—and as windows that disclose a view, invite sunshine into the home, and provide entry for fresh air.

Specification data on ANDERSEN WINDOWALLS is in Sweet's Architectural and Builders' Catalogs, or will be sent by us upon request. See your local lumber or millwork dealer for further information.

\*TRADEMARK OF ANDERSEN CORPORATION

Andersen Corporation
BAYPORT · MINNESOTA

Lions Club Model Home, Minneapolis; Robert Cerny, Architect



a front for four rooms

1\*





### High Demand ... High Production Make possible Asphalt's low price!

**Naturally,** low cost has been a strong factor in the wide-spread use of Asphalt Shingles. But low cost today is more the *result* of Asphalt's great popularity than it is the *cause*. It is estimated that 86% of all roofing purchased is some form of Asphalt.

Asphalt Shingles are in demand because of their performance record—because of the extra values built into them in service, protection and appearance. They are low in cost because record production has made low price possible. Furthermore, a better shingle is being produced today than ever before. For turnover and profit sell what sells. Sell colorful,

durable, fire-resistant Asphalt Shingles the luxury roof with the economy price!

FREE!...This booklet, "Choose Your Roof for rain ... AND SHINE", will help you sell. 24 pages in full color. Filled with tips on choosing and combining colors for exterior styling. From members or direct.

CONSTRUCTION'S BIGGEST DOLLAR'S WORTH

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SHINGLES

ASPHALT ROOFING INDUSTRY BUREAU
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SPONSORED BY 28 LEADING MANUFACTURERS OF ASPHALT SHINGLES . ROLL ROOFINGS . SIDINGS . AND BUILT-UP ROOFINGS

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#### Stokers

ALLEN STOKER
ANCHOR STOKER
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FAIRBANKS-MORSE STOKER
FUEL SAVERS STOKER
IRON FIREMAN
MOTORSTOKOR
STEWART-ROGERS STOKER
VAN WERT STOKER

#### Boiler-Burner Units

WAGNER STOKER-BOILER ANTHRATUBE

AMERICAN BOILER WORKS
AXEMAN-ANDERSON

# Experts predict shortages of some fuels for 3 to 5 Years!

• The "unbeatable heating combination"—a hard coal stoker and plentiful anthracite—will give your clients the heat they want when they want it. The experts' predictions of shortages of some fuels for 3 to 5 more years does not apply to anthracite.

The "unbeatable heating combination" works these *three ways* to keep your clients warm and comfortable:

Plentiful Heat A full year's supply of plentiful, stoker size anthracite can be stored easily.

Occupants need never turn their thermostats to chilly levels to conserve fuel.

**Economical Heat** Stokers use the smaller, cheaper stoker sizes of hard coal . . . reduce fuel bills as much as 52%.

Completely Automatic Heat Modern hard coal stokers are fully automatic . . . from bin feed to ash removal. Sensitive thermostatic controls keep heat steady.

Get all the facts on heating with all types of anthracite equipment including modern stokers and the revolutionary anthratube. Simply fill out and mail the coupon today.

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## ANTHRACITE INSTITUTE

101 Park Avenue

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New York 17, New York

ANTHRACITE INSTITUTE, Dept. 8D 101 Park Avenue, New York 17, N. Y.

Please send me more information on anthracite and anthracite equipment including stokers and the new anthratube.

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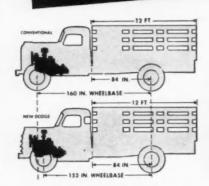
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# Only Dodge gives you all these features



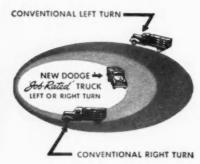
### BETTER WEIGHT DISTRIBUTION

By moving the front axle back, and the engine forward, more load is carried on the front axle, giving Dodge "Job-Rated" trucks much better weight distribution, plus ability to haul more payload.



#### MORE COMFORT AND SAFETY

1. Plenty of headroom. 2. Steering wheel right in the driver's lap. 3. Natural, adjustable back support. 4. Proper leg support. 5. Chair-height seats. 6. 7-inch seat adjustment. 7. "Air-O-Ride" cushions, adjustable to weight of driver and road conditions.



### SHORTER TURNING DIAMETERS

You can turn in much smaller circles, right and left, because Dodge "Job-Rated" trucks have an ingenious new type of "crosssteering," plus shorter wheelbases and wider tread front axles.

# THE TRUCK THAT'S

A truck that fits your job saves money . . . and lasts longer. It's easy to see why.

If your truck is too big, you waste gas and oil carrying unnecessary weight. If it's too small, breakdowns run up excessive maintenance costs.

There's no need to drive expensive "misfits." Go to your nearest Dodge dealer. Tell him what you haul, how much it weighs, and where you haul it. He will then recommend a Dodge "Job-Rated" truck specifically engineered and built . . . to fit your job.

Such a truck will have "Job-Rated" power . . the right one of seven great truck engines.

It will have exactly the right clutch, transmission, rear axle . . . and every other unit . . . to haul your loads over your roads.

In all, there are 248 basic "Job-Rated" chassis and body models. They are engineered and

built for gross vehicle weights up to 23,000 pounds, and for gross tractor-trailer weights up to 40,000 pounds. Each is "Job-Rated" for maximum economy, typical Dodge dependability.

and remember ... ONLY DODGE BUILDS "AN Rated" TRUCKS



... LAST LONGER

# PLACK & DECKER 7" "QUICK SAW"\* \$115.00

Cuts to 23/8" Depth

Rips · Crosscuts · Dadoes · Angles Grooves—in WOOD · METAL STONE · COMPOSITIONS

A Black & Decker 7" Electric Quick-Saw is ten times faster than hand sawing. Most popular size for construction, maintenance and repair jobs. Features: quick adjustments for angle or depth of cut, easy-to-change blades and discs for variety of cuts. Operates on any standard power line or portable generator. Powered by a heavy-duty Black & Decker Universal Motor, specially built for tough sawing operations. Fully protected with guards for safe use.

\*Trade Mark Reg. U. S. Pat. Off.



Hand to POWER for FASTER, LOW-COST
Sawing and Hammering



# BLACK & DECKER 3/4" ELECTRIC HAMMER \$120.00

Drills or channels in brick, stone, concrete · Chips, cleans and scales metal · Gouges, shapes and notches timbers · Drives spikes · Seams and caulks · Tamps and vibrates concrete forms · Scuffs concrete surfaces, removes form marks.

High-speed, hard-hitting and amazingly husky, yet compact and light in weight, these Hammers are completely self-contained and operate from Standard A.C. or D.C. outlet or portable generator. Deliver thousands of sharp, positive hammer blows per minute.

ASK YOUR NEARBY Black & Decker Distributor for complete information on Saws, Hammers, Drills and the many other B & D Portable Electric Tools. Write for free catalog to: The Black & Decker Mfg. Co., 666 Pennsylvania Ave., Towson 4, Maryland.

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America



Ever lose a closing in a Pea-Green foyer?

The longer you're in the business, the longer grows your list of unexpected reasons why prospects don't sign contracts that were almost closed! But now you need never lose a sale because of the old bug-a-boo of color! The Devoe Library of Colors now gives you complete control—and a satisfying answer to every whim of your most color-conscious prospect!

# ONLY The Devoe Library of Colors offers ALL this



**255** Decorator-Approved Shades—Every one with a laboratory-tested formula your own painters can mix *right*—and quickly.

All Five Paint Types—The Library of Colors system covers all five essential paint types—house paint, interior gloss, semi-gloss, and flat as well as enamel. Thus you can meet your prospects' demands on exterior and interior walls, standing trim and other woodwork—and meet them exactly.

Nationally Advertised—Full color advertising in national magazines pre-sells prospects.

How it Works—1. Select shade from big (8½ x 11 in.) sheets in

Library of Colors Book. Swatches show both you and your prospects how colors look when dry. 2. Add toner according to accurate formula printed on each color swatch. 3. Stir and paint!

Get in touch with your Devoe agent or write us direct on your letterhead today. See for yourself the full range of smart colors and learn all the advantages of using the Devoe Library of Colors to clinch those stubborn closings!

### HOW DEVOE PAINT HELPS WITH CLOSINGS

When it comes to closing contracts, there's real magic in materials bearing known brands these days. Devoe is one of the oldest, most trusted names in the Paint Industry. It pays to use Devoe products—and make sure your customers know it.

DEVOE & RAYNOLDS COMPANY, INC.

787 First Avenue, New York 17, N.Y.

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# A UTILITY SHOWER For The Basement



A REAL profit-getter in shower cabinets! Tiletone's Model 45 is designed for those who want a truly low cost cabinet, combining utility with lasting durability. Model 45 comes in

two sizes to fit any space requirement. Ideal for basement installation—summer cottages—clubs—farms. Wherever economy plus durability is desired, Tiletone's Model 45 meets the need.

MODEL 45 ILETONE
Shower Cabinet

TILETONE COMPANY . 2323 WAYNE AVENUE . CHICAGO 14, ILLINOIS

America



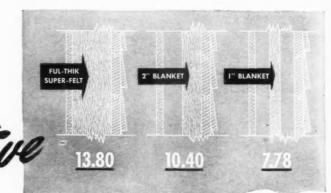
## It's "quality built" when you insulate

## with Johns-Manville SUPER-FELT\*



# Full-wall thickness

J-M Super-Felt Batts fill hollow walls to capacity... provide maximum insulation... no "flue-like" spaces to create a fire hazard. In the attic too, full thickness gives extra protection against summer heat, increases fuel savings in winter.



Far more effective

The figures under the above diagrams represent the total resistance to the passage of heat through frame walls insulated in three different ways. (Authority: A.S.H & V.E. Guide). Note that the wall with Full-Thik Super-Felt has far more heat resistance than either of the others. This means greater fuel savings to your customers and more year-round comfort.



# Costs no more to apply

Installation costs are the same whether you install inadequate insulation or the best. You can easily cut Super-Felt Batts with an ordinary knife to fit snugly around corners, firestops, braces, windows, etc., resulting in a better and more efficient job.

An attractive plaque is available for display in your houses when insulated with J-M Super-Felt. It helps identify you as a quality builder. For details write: Johns-Manville, Box 290, New York 16, N. Y.



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A GREAT Sales Making COMBINATION!



RETAILS FOR ONLY

Here's the calking gun that is been wanting a gun that is priced so low it paves the whole priced so low you've never lit's light able to fool-proof. This gun will sturdy, fool-proof.



Plus THIS

With SPEED LOAD you offer your customers the world's finest calking compound plus the most efficient and practical load on the market. Our new, improved load has a specially designed cap that makes it impossible for the metal cap to pull loose from the fibre board tube.

SPEED LOADS packed 10 loads to a carton. Full freight allowed on 8 cartons or more,

> SELL Nu-Glaze INSTEAD OF PUTTY ...

Nu-GLAZE does the job better for your customers . . . makes a bigger profit for you. The perfect you. The perfect material for glazing wood or metal sash.



Furnished in 1/2 pint, pint, quart, 5 lb. and 12½ lb. cans. Also in 25, 50, 100, and 880 lb. drums.

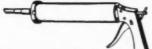
Sold only through hardware stores, building supply dealers and lumber

ANBURG CAN CO.

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KING GUNS



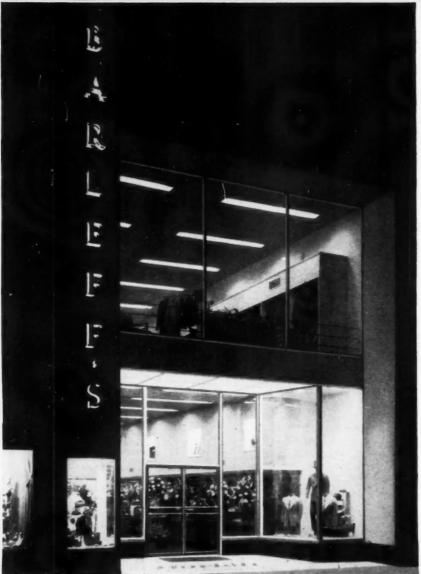


Our CG-3 Standard Calking gun is still a big favorite with experienced calking appliers. Sturdy, light weight. Easy trigger action, yet powerful piston action. Barrel 2" by 91/4".

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# Give your jobs the "modern look"

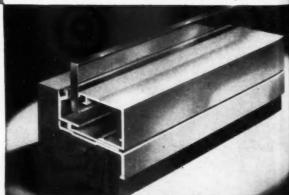


A POPULAR SPOT in every home . . . the full-length door mirror. Each member of the family uses it for head-to-toe check-ups. Most homes need several. Other Pittsburgh Mirrors are both decorative and useful in modern homes . . . mantel mirrors for living rooms, "spruce up" mirrows for the entrance halls and kitchens, and wall mirrors for almost every room in the house.

EASY TO INSTALL... that's the story with both lines of Pittco Store Front Metal. All Pittco setting operations are carried on from outside, and simple setting procedures save installation time and money. Pittco De Luxe is extruded metal... that means strength, sharp profiles, and a finish rich in tone and gloss. Pittco Premier features gracefully curving lines and a smooth attractive finish. It is lighter in weight and more moderately priced than Pittco De Luxe.

Pittco De Luxe Rectangular Sash

AN "OPEN VISION" FRONT takes full advantage of the display possibilities of an attractive store interior. It creates customer interest, increases sales appeal, boosts sales volume. Merchants are anxious to modernize because a glamorous, up-to-date store means better business. And merchants know that "Pittsburgh" is the leader in the store modernization field. Sell "Pittsburgh" . . . the complete line of Pittsburgh Glass Products, Pittco Store Front Metal, and experienced crews of "Pittsburgh" workmen to make the installation. "Pittsburgh" service will please your customers . . . and help your business.



PITTSBURGH PLATE GLASS COMPANY

# with Pittsburgh Glass



WALLS OR WAINSCOTS of Carrara Structural Glass brighten up the kitchen, make it a pleasant place to work. They add beauty to the bathroom, too. Carrara is easy to clean, stays new-looking and beautiful indefinitely. Ten attractive Carrara colors give you a wide range of color-scheme possibilities. Other uses of Carrara Glass: splash panels, fireplace surrounds, window sills, shelves.

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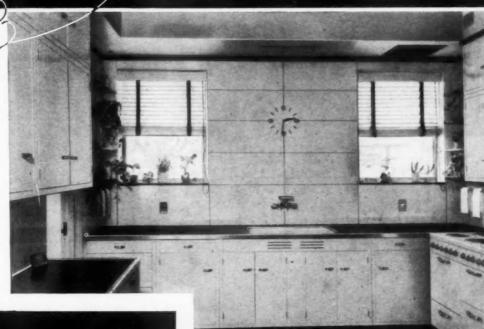
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A PICTURE WINDOW . . . in living room, dining room or bedroom . . . is a glamorous touch which modern home-makers like. It draws attention to an attractive view, and floods the room with natural light. Twindow, with built-in insulation, is the ideal choice where your customers want to reduce fogging, eliminate downdrafts and maintain an even room temperature. Pittsburgh Corning Glass Blocks admit light but exclude sight.

REE! We will gladly send you free our special "Builders Kit" which includes illustrated literare showing how you can use glass effectively on all types of jobs in which you are interested.

\*Build it better with

# Pittsburgh Glass

2244-8 Grant Building, Pittsburgh 19, Pa.	
Please send me without obligation your "Builders Kit" of illustrated literature.	
Name	

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PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS

PITTSBURGH PLATE GLASS COMPANY

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### **DUBLECOTE** MULTI-SHINGLES †

# PROTECTION ...because the double-thick butts lock the door on wear and weather...and because only top-grade felt, carefully blended asphalt, and top-quality mineral granules are used in Dublecote Multi-Shingles. **E GOOD LOOKING E LONG LASTING**

... because the extra thickness makes a more interesting roof surface...and because the mineral surfacing makes possible a variety of rich blends and solid colors.

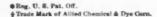
...because the waterproofing oils are sealed into the base of the shingle, adding years of life to the roof. That's what makes a roof of Dublecote Multi-Shingles† an economical investment for your customer, and a credit to your reputation as a fine roofer.

#### THE BARRETT DIVISION ALLIED CHEMICAL & DYE CORPORATION

40 Rector Street, New York 6, N. Y.

36th and Gray's Ferry Ave. 2800 So. Sacramento Ave. Philadelphia 46, Pa. Chicago, III.

THE GREATEST NAME IN ROOFING



CO Means



FOR MODERN

**HOUSING PROJECTS** 

CONCO VF Oil-Fired Winter Air Conditioner with the **CONCO-BREESE Horizontal Burner.** 

- / ECONOMICAL Initial Cost!
- 2 ECONOMICAL To Install!
- 3 ECONOMICAL To Operate!

And this is important, too...the compact CONCO VF is available NOW!

All the genius of today's heat and production engineering is combined to make the CONCO VF available to builders at an amazingly low price. Because it is a complete, streamlined package...factory-wired, assembled and tested . . . the VF comes to you ready for quick, easy, economical installation.

CONCO OIL-FIRED WATER HEATER 25 and 45 gal. Capacities.



**CONCO-BREESE Horizontal OIL BURNER** 

The CONCO-BREESE horizontal burner is the secret of the sensational fuel-saving economy of the CONCO VF.



BUILDERS—Write today for the complete VF story. See how the CONCO VF fits into your plans.

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CONCO MATERIALS HANDLING DIVISION CRANES-HOISTS

CONCO BUILDING PRODUCTS, INC. BRICK-TILE-STONE

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John Werner—Roddiscraft No. 1 drum sander operator. Demands perfection from his machine and knows how to get it. Taught the art to sons Albert and Walter.

Joe Werner — when you admire the extra fine finish on a Roddiscraft door, chances are you are paying a tribute to his skill with the belt sander.

# Roddiscraft Quality



A Roddiscraft family affair—the Werner family representing 152 years of experience—brothers John, Rudy and Joe— John's sons Albert and Walter—Rudy's daughter Frances watch Rudy, Jr., the most recent member to join Roddis, perform the first step in starting a Roddis hardwood log on the way to final production as a Roddis panel or door.

Families of craftsmen — generations of craftsmen — are the rule at Roddis where pride in the product is a half-century tradition. This seven-member Roddiscraft family is typical of many in which the skill and know-how of one generation is passed on to another.

You can see the hand of the fine craftsman in every Roddiscraft product. Compare Roddiscraft hardwood flush doors and hardwood plywood and see for yourself. Note the over-all effect of a finished product — run your hand over faces and edges — note the satin smoothness — the absence of rough or unfinished edges.

The same care and craft is applied in assembly — in laying up cores, in applying veneers, in bonding. Quality is an inside as well as an outside job. With Roddiscraftsmen you are assured that Roddiscraft products are quality products inside and out.

### NATIONWIDE Roddiscraft WAREHOUSE SERVICE

L.I. City, N.Y. Review&Greenpoint Ave. Los Angeles 11, Calif., 2860 E. 54th St. Marshfield, Wis... 115 S. Palmetto St. Milwaukee 8, Wis... 4601 W. State St. New York City, N. Y., 920 E. 149th St. San Antonio, Texas. 7727 N. Cherry St. San Francisco 24, Cal. 345 Williams Ave.

DEALERS IN ALL PRINCIPAL CITIES

# Roddiscraft

Roddis Lumber and Veneer Co.

MARSHFIELD, WISCONSIN

# WHY THIS STRONG GARAGE DOOR IS INSTALLED Quicker



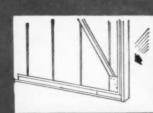
### Check these Outstanding Advantages:

- 1. INSTALLED QUICKER (see illustrations at right)—Experienced 2-man crews are installing Strand Canopy Doors in prepared openings in minutes; Receding (tracktype) Doors take somewhat longer:
- 2. AVAILABLE you can get Strand Doors without waiting and without limit.
- 3. STRONG AND DURABLE allsteel, all-welded construction provides outstanding strength and durability for a lifetime of service. Galvannealing provides a hot galvanized zinc coat for rust protec-

tion, oven-baked to provide a clinging base for paint.

- 4. ATTRACTIVE IN APPEARANCE
  —its good looks are permanent!
  Steel won't warp, shrink, sag or rot.
- 5. LOW IN COST—new low price results from volume production concentrated in one plant, and standardization on two models. Strand is America's greatest garage door value!

Your Strand doors are waiting for you! Order today from your dealer — or mail the coupon, mentioning your dealer's name.



LESS CRATING



LEAF IN 1 PIECE



HARDWARE COMES ALREADY ASSEMBLED



INSTALLED WITH ORDINARY TOOLS



ALL STEEL GALVANNEALED . OVERHEAD . ONE PIECE

STRAND

TWO TYPES . . . RECEDING (TRACK) AND CANOPY

STRAND BUILDING PRODUCTS CO.

Dept. AB-8, 1710 Buhl Building, Detroit 26, Michigan.

Please rush literature with detailed descriptions of Strand all-steel Garage Doors.

l am ( ) Architect; ( ) Contractor; ( ) Prospective Home Builder; ( ) Student. (Please check above).

Name\_

Address

City\_\_\_

State\_\_\_

America

# Why The Kitchen Is Today's "Measure Of Value"

LET'S LOOK AT THE KITCHEN

Prices Look Lower Through
The Windows of Hotpoint
All-Electric Kitchens

ALERT ARCHITECTS and builders find there is "magic" in modern electric kitchens. For the tremendous impact of powerful advertising has made Americans thoroughly kitchen conscious. Today, buyers are apt to judge the value of the house on the merit of the kitchen.

Within the past three years Hotpoint has received over 2,000,000 inquiries about All-Electric Kitchens. Pioneer of the modern electric kitchen, Hotpoint has designed new and revolutionary appliances that make the kitchen a real showplace.

Today the Kitchen is the Measure of Value

Thirty million people know that Hotpoint means the finest, and prospective owners say houses which include All-Electric Kitchens are better buys. Payments are easier, too, because in most states the cost of both the house and the appliances may be included in a "package mortgage." See your Sweet's Catalog for details or consult your nearest Hotpoint Distributor. Hotpoint Inc., 5641 W. Taylor Street, Chicago 44, Ill.

Hotpoint has everything for the kitchen and laundry:
\*\*BANGES • REFRIGERATORS • FREEZERS • DISHWASHERS • DISPOSALLS\*\*

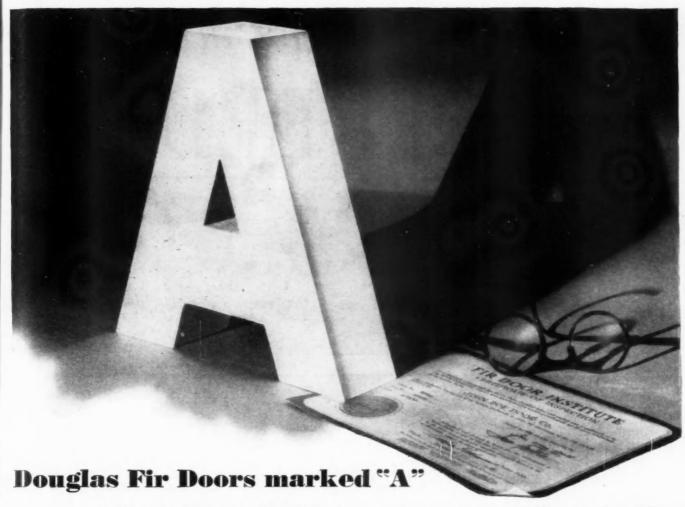
CABINETS • SINKS • WATER HEATERS • FLATPLATE IRONERS
ROTARY IRONERS • WRINGER-TYPE WASHERS • DRYERS

\*Reg. U. S. Pat. Off.

Everybody's Pointing to

Hotpoint Inc. A General Electric Affiliate

PIONEER IN THE ALL-ELECTRIC KITCHEN



### **Meet these Industry-Approved Standards:**

GRADE A—Recommended for Paint or Enamel Finish
To be Factory Resin-Sealed



When the letters FDI appear as part of the grade trade-mark they certify that the doors so marked not only meet industry standards but have also been officially inspected by the Fir Door Institute and, at the buyer's request, will be covered by the official, notarized Certificate of Inspection.

[Douglas Fir Doors are also made in Grades B, C and MR. Subsequent advertisements will detail the standards for each grade.]

FIR DOOR INSTITUTE

Tacoma 2, Washington

STILES, RAILS, AND MULLIONS.—This stock shall be heartwood, all vertical grain old growth Douglas fir, Sitka spruce, or Western hemlock, the faces of which must be clear, with the exception that small, inconspicuous, and neatly repaired pitch seams are permissible. Characteristic sound dark streaks are permitted in hemlock. Glued-up rails are permissible in widths over  $4\frac{1}{2}$  inches. A moisture-resistant glue shall be used. Mixing of woods is not permitted

PANELS—FLAT VENEERED.—The standard thickness of 3-ply flat veneered panels shall be ½ inch after sanding. Each face shall be of a yellowish or pinkish color or a blend of the two, and shall be from smoothly cut veneer, free from knots, splits, pitch pockets, and other open defects. Small streaks and spots of other colors are permissible, provided that they in no manner make the panel unusable for the purpose intended. Shims that occur only at the end of panels and inconspicuous well-matched patches shall be admitted.

PANELS—SOLID RAISED.—The standard thickness of solid raised panels shall be not more than 9/16 inch before sanding and not less than 7/16 inch after sanding. They shall be either all vertical or all slash grain in any one door, and shall conform to the grade of the stiles and rails.

# Wherever there's news in building

# "NEW FREEDC

THE REAL NEWS in this Walcott English type house completed for Mr. and Mrs. Nicholas DeBiase of Teaneck, N. J. - is its faultless quality throughout. Every detail, from the two-to-one bonded stonework to the breezeway and patio in back, is the finest example of modern planning combined with topflight workmanship and materials. Naturally, with the best construction outside, there's a "New Freedom Gas Kitchen"\* inside!





Here's why an authorized "New Freedom Gas Kitchen" is such a unanimous success

BANKERS say:

"Financing is easier ... because there's less long-term risk involved in a house with a complete 'New Freedom Gas Kitchen'!"

ARCHITECTS say:
"There's more chance for individual design with these new streamlined Gas appliances. They are inexpensive and easy to install in any kitchen layout."

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SKITCI

BIGGEST NEWS in this "New Freedom Gas Kitchen" is this double-duty cooking unit. It not only features a deluxe automatic Gas range built to "CP" standards but a custom-built ventilating system concealed behind the decorative scalloped valance. (Reminder: Modern kitchen ventilation is most effective with Gas. No other cooking fuel provides the right air-currents to capture and carry away unwanted odors and greasy vapors at their source.)

Here's how easy it is to meet the requirements for "the kitchen that clinches the sale"

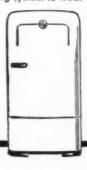


1. SPECIFY: America's finest, fastest, most efficient cooking appliance . . . an automatic Gas range built to "CP" standards. 2. SPECIFY: America's most practical automatic refrigerator ... a new Servel Gas refrigerator with no moving parts in the freezing system to wear out.

3. SPECIFY: America's only fast recovery hot water system . . . an automatic Gas water-heater in the right size for all needs.

4. SPECIFY: America's most modern kitchen planning . . . the background you would naturally select for the world's most modern appliances run by Gas!









BUILDERS say: 'Selling is a cinch when a house is already equipped with the modern automatic Gas appliances clients want.

all

BUYERS say: "Deciding on which house we want is simple once we've seen one with a 'New Freedom Gas Kitchen.' We know it's the best for our money now . . . and that we'll get the most for our money if we have to re-sell later."



Free! For new promotional material tied in with nation-wide publicity program . . . see your local Gas company or write direct to:

AMERICAN GAS ASSOCIATION 420 LEXINGTON AVE., NEW YORK 17, N. Y.



Automatically Yours For Better Heating

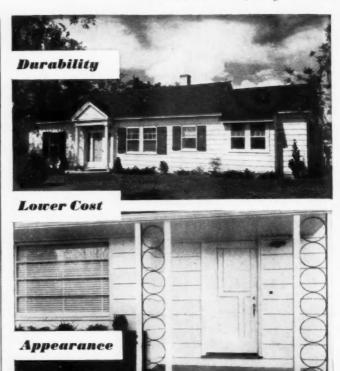
GENERAL



CONTROLS

Write For Free Descriptive Literature

FACTORY BRANCHES: BIRMINGHAM (3) BOSTON (16) CHICAGO (5) CLEVELAND (15) DALLAS (2) DENVER (10) DETROIT (8) HOUSTON (2) KANSAS CITY (2) NEW YORK (17) PHILADELPHIA (40) PITTSBURGH (22) SAN FRANCISCO (7) SEATTLE (1) DISTRIBUTORS IN PRINCIPAL CITIES



### with ECONOMY SIDINGS

Economy Siding in Western Pines\* is a lower grade siding, but gives, at less cost, the modern appearance and the durability of more expensive materials. Here are some of the advantages of Economy Siding—superb resistance to weathering, easy to paint, outstanding toughness, minimum shrinkage, quick to apply, excellent insulating qualities, structurally strong, and a variety of patterns.

Economy Siding and knot sealer WP-578 (see below) are a team in providing distinctiveness to a home at a lower cost. Architects and builders are today recommending this team to home builders as one means of meeting high building costs.

#### → KNOT SEALER WP-578 ←

Knot sealer WP-578, developed by Western Pine Association, is recommended for priming knots to prevent paint failure. In laboratory and field tests, it has out-performed all other sealers. Prepared solutions of WP-578 are made and distributed by 57 approved manufacturers from coast to coast. If your dealer does not have it, write Dept.90-B, Western Pine Association, Yeon Building, Portland 4, Oregon.

\*Idaho White Pine

\*Sugar Pine

\*Ponderosa Pine

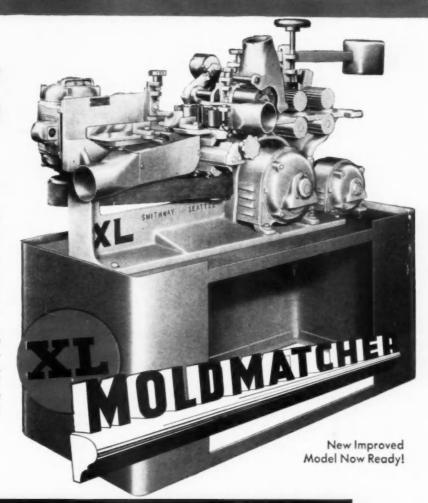
### THESE ARE THE WESTERN PINES

Well-manufactured-thoroughly seasoned-carefully graded-by all Association member mills

# 160 XL MOLDMATCHERS MANUFACTURED IN ONE MONTH!

### SMITHWAY Now World's Leading Moulder Manufacturer!

Here's the new low-cost moulder that's the sensation of the industry—XL MOLDMATCHER! The minute you see a demonstration you'll understand the reason for soaring demand and recordbreaking volume production. For XL Moldmatcher makes any kind of small mouldings up to 2" x 4" stock, turns out 2400' to 12,000' of moulding per hour, yet costs only about ONE-FIFTH of the usual price. It's precision-built. Oneman operated. Utilizes waste stock. Often pays for itself on one job alone! Get the PROOF! Write for literature and name of nearest dealer, TODAY!



### SMITHWAY MACHINE COMPANY

Manufacturers of the XL Line of Woodworking Equipment

4617 Airport Way

Seattle 8, Washington



New XL RIPPER Self-Feed Rip Saw



New XL LOK-SAFE SHAPER COLLAR



New XL SPINDLE SHAPER

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### Oak Floors ARE INSURANCE FOR RESALE VALUES

Home buyers don't usually buy homes for resale. But, resale is always a possibility . . . and oak floors definitely help to maintain values.

That's because they're a permanent investment. With ordinary care and attention, they'll last for generations. They have long-time economy.

Then, of course, they're beautiful and will always retain this beauty. And finally, they're so completely adaptable that they'll harmonize with any style, period or color of furniture . . . make the rooms glow with warmth and hospitality.

These are points which you can profitably emphasize to your buyers. They're explained more fully in the booklet, Oak Floors for Long-time Beauty, which you can obtain, free, from your oak flooring dealer. Ask also for new Builders' Data Book which provides detailed specifications for planning, laying and finishing oak floors. Get these two helpful books today.

You'll make good friends when you build houses with extra resale value.

> Copyright 1948 . . National Oak Flooring Manufacturers' Association, Memphis, Tenn

OAK FLOORS

DURABILITY ADAPTABILITY - ECONOMY

Clean, Healthful Heat for HOSPITALS "Streamaire" Convectors for Installation in: Specify Homes Apartments "STREAMAIRE"\* Schools CONVECTORS Offices Institutions

Two outstanding examples of the effectiveness of Young Convectors for heating hospitals are the installations made by Magney-Tusler & Setter, Architects and Engineers, in both the Swedish and Deaconess Hospitals in Minneapolis, Minnesota. Illustration above shows typical installation in one of the operating rooms. Young Convectors are installed throughout the hospital-in reception rooms, diet kitchens, convalescent rooms, hallways and stairways. These "Streamaire" Convectors provide clean heat at controlled temperatures . . . so vital to hospital use. Their heat-sensitive cores obtain full efficiency from steam and hot water systems. Their attractive, streamlined cabinets are easy to keep clean, conserve floor space and may be painted to harmonize with room interiors. Write today for your free copy of the "Streamaire" Convector Catalog.

\*Trade Mark Reg. U. S. Pat. Off.

TRANSFER

Public Buildings

**PRODUCTS** 



YOUNG RADIATOR CO. Dept.628-H.Racine, Wis., U.S.A. Sales and Eng. Offices in All Principal Cities

HEATING, COOLING AND AIR CONDITIONING PRODUCTS Convectors . Unit Heaters . Heating

by Young

coils • Cooling coils • Evaporators
• Air conditioning units •

#### AUTOMOTIVE AND INDUSTRIAL PRODUCTS

Gas, gasoline, Diesel engine cooling, radiators • Jacket water coolers • Heat exchangers • Intercoolers • Condensers
• Evaporating coolers • Oil coolers • Gas coolers . Atmospheric cooling and condensing units • Supercharger inter-coolers • Aircraft heat transfer equipment

# TRENDS

BUILDING MATERIAL - EQUIPMENT - APPLIANCES

### **Material and Labor Costs Continue Upward**

STARTS of new dwelling units in May totaled 97,000, an increase of 24,000 units over May 1947. This brought the total for the first five months to 356,000, 28 per cent above the first five months last year. It is possible that starts may have declined this summer as early reports of the Bureau of Labor Statistics for June showed a decline in local permits issued in most sections. Reasons for an anticipated decline are mounting labor and material costs, and the elimination of Title VI financing. The tense international situation may operate to overcome these unfavorable factors, inducing many prospective home owners with adequate resources to build now at any cost.

Building costs have reacted to labor's third round of wage increases now effective for on-the-site labor as well as labor employed by building material producers. Peak construction activity this spring put pressure on supplies of lumber and metal, another factor operating to increase costs. The recent freight rate increases are particularly onerous to the building industry. As a result of these factors wholesale prices of building materials in April set a new all-time high. There was hope for lower lumber prices the first of the year as the nation's biggest lumber company reduced prices in an effort to set an example to be followed by the rest of the industry. The effort was futile and the company raised prices sixty days ago in the face of its increased costs all the way along the line. Similar price reductions announced by appliance manufacturers have also been revoked.

Compared with a year ago, the wholesale price index of the Department of Commerce shows an increase in every category except paint. The composite index advanced from 196 in March 1947 to 213 in March 1948.

Lumber prices are now more than three times the 1939 level. Lumber and labor costs continue to be the outstanding factors in increased construction costs.

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Labor costs even before the raises granted late this spring showed a substantial advance over last spring. According to the Bureau of Labor Statistics, the increase in average hourly earnings of on-the-site labor followed a 20 cent pattern.

Raises granted since April are like-

ly to bring another jump, ranging up to 20 cents.

For three years prices of commodities and wages have been making an uneven upward march, with the end not in sight. In most industries, including agriculture, production is not greatly in excess or below the peak years of the respective industries. Automobile production is at about the 1929 level. Production of new homes is somewhat above the 1925 rate, both peak years for those industries. The only way that prices will be reduced is by a substantial slackening in demand. As for housing, a dip may occur as the result of the death of Title VI.

Speculative builders may be particularly hard hit. Nathan Manilow, president of the Chicago Home Builders Association, believes that "there may be a 50 per cent drop in the volume of home construction due to the absence of Title VI, becoming increasingly noticeable month by month, and there will be a big decline by September." The same class of buyers who had extraordinary difficulty in making a 10 per cent or 20 per cent down payment will probably have to pay 35 to 40 per cent which will form a more restricted market for builders and a slower turnover of completed homes.

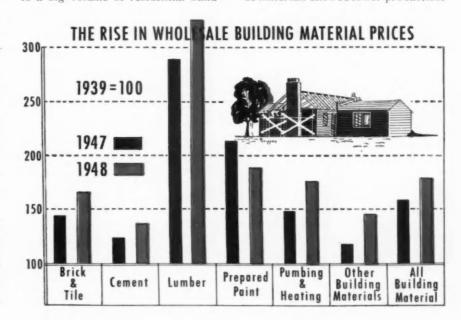
In the twenties such down payments were common and were no detriment to a big volume of residential building. However, a large part of the building volume was apartment building in large cities. Now 88 per cent of residential starts are single-family homes, 70 per cent in communities of under 20,000 population.

In view of rent control in big cities and the experience of investors in the twenties, conditions have not been auspicious for apartment building at present prices.

The annual rate of new home building for 12 months ended May was 924,100 units, fast approaching the million mark. If this rate, in spite of adverse influences, can be maintained it will be a great contribution to the nation's economic stability, will end the housing shortage in the near future, and will result in substantial improvement of the well being of the American people.

**Gain in output** of building materials was reported by the Commerce Department whose index stood at 139.9 in March (1939=100) the highest March figure on record.

Production of gypsum board and lath was more than 50 per cent higher this March than in 1947. Board output was as much as seven times the average 1939 output and production of lath was twice as high as in 1939. Hardwood flooring was 52 per cent higher than in the previous March. There was a gain of 5 per cent in wire nails. Only three out of 19 types of materials showed lower production.



America



PIVE out of five home owners in your town with "Model T" garage doors are prospects for Stanley floating Garage Door Equipment. No other improvement in their homes makes such a big difference at such a low cost.

With four styles to choose from, any home owner can pick the one that's perfect for his type house...that's just right for his money. And everything, down to instructions for



1. "ECON-O-MATIC" For doors up to 150 lbs. A twist of the handle and the door "floats" up and over.



2. "SLIDE-UP" For old or new doors. A Ample weight box, sand filled, balances the weight of the door.

installing, comes in one complete package. Stanley floating Garage Door Equipment is nationally advertised to your prospects in Better Homes and Gardens, American Home, and House & Garden; also to architects through their magazines. Write for details, including detailed specifications and installation information now! The Stanley Works,

Garage Door Dept., New Britain, Conn.



3. "SWING-UP" Carries doors up to 250 lbs. in any size up to 16' x 8'. Excellent for converting old hinged doors into a smooth working



4. "SWING-UP" (Heavy Duty)
— Handles heavy doors of various heights. With heavier springs this set will handle doors up to 16" wide weighing up to 550 lbs.

STANLEY

Reg. U.S. Pot. Off.
HARDWARE - HAND TOOLS - ELECTRIC TOOLS

THE GREATEST NAME IN DOOR HARDWARE!

For Any Residential, Commercial or Industrial Door That Lifts — Slides — Swings — Rolls — Or Folds.

SUBSTITUTE

### A MINING A ALUMINUM NAILS PLASTER BOARD NICHOLS NEVER S ALUMINUM IS NOT A

### Check these Features

of the most logical nail for plasterboard application

- Aluminum Nails will not produce unsightly, red-brown rust to bleed and streak surfaces. No brown spots can bleed through plaster. Aluminum nails will not harm or discolor the surfaces on which they are applied.
- Nichols Aluminum Plasterboard Nails are etched all over from tip to head. This special treatment provides an excellent surface on the nail head for greater scratch coat adhesion.
- Tests prove that because of the etched surfaces of Nichols Aluminum Nails, their holding power has been substantially increased. They are made of a special aluminum alloy—Federal Specification QQ-A-325, are easy to handle and easy to drive.
  - New, tight wax impregnated shipping cartons, a Nichols innovation in nail packaging, keeps nails fresh and clean until ready for use. They are as sani-tary and clean as any other plasterboard nail ever made.

## THE GREATEST NAIL IMPROVEMENT

OF THE CENTURY

Pioneered by Nichols, hundreds of millions of Nichols ALUMINUM PLASTERBOARD NAILS have been used with outstanding success in the application of sheet rock, rock lath and other gypsum boards in buildings of every description from coast to coast. Many are also used in the application of wallboards and other building boards.

Craftsmen everywhere acclaim Nichols Aluminum NAILS. They drive well! Most important, no protective coating is required that can be knocked off by hammer

Because of their many advantages, they are economical. There are almost three times as many aluminum nails per pound as there are steel nails of the same size. A 50 lb. package of aluminum nails contains almost 50% more nails than a 100 lb. keg of the same size steel nails. NICHOLS ALUMINUM PLASTERBOARD NAILS are packed in a new type, wax impregnated, clearly labeled carton. They are available for immediate delivery in 11/4" and 11/2" sizes — packed in 50 lb. cartons.

IMPORTANT: ALUMINUM PLASTERBOARD NAILS SHOULD NEVER BE USED FOR APPLYING STEEL LATH.

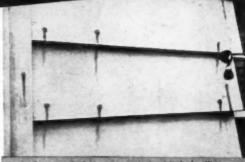
# NICHOLS NEVER-STAIN ALUMINUM SIDING NAILS

The most economical kind of nails to use when applying either wood or asbestos siding are NICHOLS Never-Stain ALUMINUM SIDING NAILS.

Once applied you can depend that they will remain in place because of their etched treatment from tip to head, that provides greater holding power. Gone forever are complaints because of rust streaked newly painted surfaces. Aluminum will not and cannot produce unsightly brown rust to mar any paint surface.

Nichols Aluminum Siding Nails are made of a special hard aluminum —Federal Specification QQ-A-325, and are fully heat treated and cold worked. They are easy to drive and are always clean looking.

Note the rust streaks on the paint of the siding in the photo at right, caused by ordinary nails in less than eighteen months time. This can never happen when aluminum nails are used.



A \$10 added investment in Nichols "Never-Stain" Aluminum Wood Siding Nails on this five room house would have saved a \$200 re-

Generous stocks of Nichols Never-Stain Aluminum Plasterboard and Aluminum Wood Siding Nails are carried in warehouses at San Francisco, Calif., Seattle, Wash., and South Deerfield, Mass., as well as in jobbers' stocks throughout the eastern, central and southern states. Address all inquiries and orders to home office in Davenport, Iowa. When you specify and use NICHOLS "Never-Stain" ALUMINUM NAILS, you give your clients the best nails obtainable.



NICHOLS WIRE and ALUMINUM CO.

MAIN OFFICE AND FACTORY: DAVENPORT, IOWA Warehouses: Mason City, Iowa . Battle Creek, Mich.

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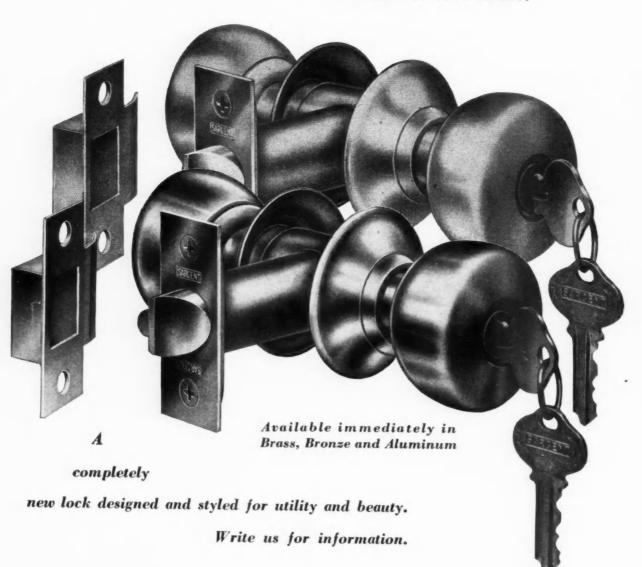
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Easy to apply
Self-aligning
Reversible without changing parts
No knob or rose screws.



### **SARGENT & COMPANY**

New York

New Haven, Connecticut

Chicago



**SELLING**—On all sides this strange word is beginning to appear. Lumber dealers inventories are up, and many of them are actively wooing customers. Many manufacturers of building materials have put pressure on their sales forces. Home builders are beginning to think in terms of selling new houses. The industry is working itself out of the home shortage faster than many think.

**S. 866**—Because Congress is not in session and the newspapers are not full of news about public housing legislation, is no reason to conclude that S. 866 is a dead issue. It is merely in abeyance until 1949 or until this fall if a special session is called.

**NO REST**—This is not the time for those who believe that the future of the country depends on preserving free private enterprise to rest in their efforts to defeat S. 866.

TIME TO PLAN—This is the time to plan public education programs and assemble facts for what promises to be the most critical battle yet, on the public housing issue.

PARTIAL SOCIALISM—It is just as impossible as partial war. When two all-military units begin to shoot at each other there is war, not partial war, and in a short time everybody is shooting. The same is true of socialism. A little dose of it means that in a short time the whole prescription will be ordered.

POLICE STATE—Socialism is contrary to the natural urge in men to seek their own economic levels and ethical codes. Thus, socialism works only under state police enforcement. The inevitable end is a police - regimented state, better known as Communism.

THE ISSUE—The issue involving S. 866 is not more housing, veterans' housing, cheaper housing or slum clearance. In fact, it is not housing at all. The issue is only whether or not the country's second largest industry will be brought under the dead hand of socialism as the first major move to destroy individual freedom in America.

A. I. A.—The following is quoted from an A.I.A. bulletin dated May 21: "The American Insti-

tute of Architects today in a statement presented to the House Committee on Banking and Currency, gave approval to the present version of the Taft-Ellender-Wagner bill on housing." The A.I.A. either relishes the idea of being converted into a government bureau with its members feeding at the public trough, or it is looking at the world with its head in the sand

LOUIS JUSTEMENT—He spoke for A. I. A., and among other statements said that A.I. A. "attacks the argument made for the 'filtering down' process of providing housing for low-income groups." He added that "filtering down might be a good concept in normal times, but that present conditions are not normal, and the process is not working because there are not enough vacancies to permit it to operate." Mr. Justement seems to be doing no thinking of any kind, beyond some elementary considerations of temporary conditions.

MOTIVES —It is difficult to believe that the A.I.A. and its spokesman are so naive as to have missed the real issue at stake in S. 866. If they have missed it they are in dire need of education in their own interest as well as the interest of the country and its economy. If they have not missed it the conclusion is inevitable that their policy makers are willing to sell private enterprise building for some undefined and dubious temporary gain.

BUILDING COSTS-Has anyone heard of the heavy building construction industry being under fire because of the increased cost of factories, office buildings and institutional structures? Of course not. The strategy is to socialize and regiment the home building segment of construction first, because the emotional overtones that can and are being used make home building more vulnerable. What does a worker in a factory or office care what the company has to pay for a new building? So little that political demagogues in Congress and the destructionists who call themselves liberals and socialists know that the public cannot be aroused. So, no attack - yet - on heavy construction costs.

## outstanding development in... Bored-In

Design

See
Facing
Page
The New
SARGENT
4500 Line

Self Aligning . . . Once installed a self aligning feature makes it entirely independent of the door for proper functioning.

Always Symmetrical . . . a new design feature makes the projection of the knobs always symmetrical regardless of the thickness of the door.

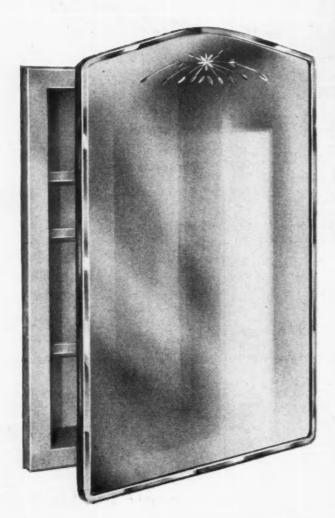
Simple, Compact... Through simplification of the lock mechanism only an 13/8" hole is required in the face of the door thus permitting gracefully designed Knobs and Roses, proportionate in size.

Universal Application . . . One Lock Case can be applied to doors of any swing or handing.



### Sargent & Company

New Haven, Conn. New York Chicago







## How to help customers make up their minds

Give'em what they want! In medicine cabinets, they want *Gerity*, because of their perfect image *mirrors*—full length, chrome plated, piano-type *hinges*—one piece construction. So they sell!

#### WHAT WOMEN LIKE!



Brightly gleaming chrome Smartly modern design All the screws concealed Easy to keep shining

#### WHAT MEN LIKE!



Tougher, heavier chrome Won't flake or wear off Gerity's reputation with big auto makers for top quality in chrome plate

### WHAT BUILDERS LIKE!



Self-centering backplate makes installing a cinch Exclusive Gerity patent

### LIFETIME CHROME



#### EYE-CATCHING DISPLAYS!

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### Recommend Mueller Climatrol to your clients for "budget-size" fuel bills

Yes, you can promise *low fuel bills* when you recommend Mueller Climatrol. That's what your clients look for when they buy a furnace. And with a Mueller Climatrol, they can count on full comfort value for every dollar they spend on fuel — for years to come.

You can suggest a Mueller Climatrol with complete confidence. You know your judgment is backed by Mueller's 91-year record. You know that each furnace is scientifically designed, and built with care. You know a Mueller Climatrol gives your clients top com-

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Whether you design a home for gas, oil or coal heat — Mueller Climatrol belongs on the specifications. Recommend Mueller Climatrol to new home builders, to clients who are remodeling — to anyone who wants to avoid "waste-high" fuel bills. It pays off in years of economy for your clients—and years of appreciation for your service and good judgment, Write for bulletins. L. J. Mueller Furnace Co., 2016 W. Oklaboma Ave., Milwaukee, Wis.



B-40















FOR GAS

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Why get a hump on Your Back





WHY burden yourself with complaints from home buyers? To keep them happy, you watch changing demand. Today the trend is to Electric Ranges. Another million American families switched to Electric Cooking last year. Conservative estimates indicate that this year at least a million more Electric Ranges will be installed.

This is a definite trend that cannot be ignored. Progressive builders recognize this trend. Electricity is a "must" in any house, and it's simple and economical to include wiring for an Electric Range leading to a range outlet in the kitchen at the time of construction. This is assurance that the houses you build are not only modern today, but will stay modern for years to come!

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YOUR HOUSES Another 1,000,000 American families switched to Electric Cooking last year

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## EDITORS' ROUND TABLE

**EVERY MONTH,** within a few days after the latest issue has been read by the entire staff, *American Builder's* editors convene as a board of self criticism. There are no sacred cows at these meetings, and no one, including the editor, is immune from criticism or questioning.

LETTERS FROM READERS was a principal subject of discussion at the July meeting. One member of the staff said that most of the letters published say directly or by implication that we are very good, and that most of the others, while probably interesting to the editors, cannot command much reader interest.

who, except us, he asked, cares to read letters telling us how good we are. That stopped everybody. Then he read some of the letters published in recent issues, and asked how we could expect our readers to get much out of them. Somebody attempted a defense on the basis that practically every magazine has a department like our "LETTERS."

one way to get letters is to ask for them. Some magazines do. American Builder does not, and does not intend to. OF COURSE WE ARE GLAD TO GET THE HEAVY BATCH OF MAIL WE RECEIVE EVERY DAY from readers, but we are about convinced that very few readers are interested in reading three columns of letters as a steady diet.

SAID THE ANTI-LETTER MAN, LET'S TRY TAKING OUR HAIR DOWN FOR THREE COLUMNS AND TALK ABOUT WHAT WE HEAR FROM PEOPLE, AND AND WHAT WE ARE THINK-ING AND TALKING ABOUT. MIGHT EVEN TALK ABOUT SOME OF THE LETTERS.

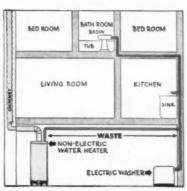
"SECOND MORTGAGE money," piped up one of the staff who spent June living out of a suitcase. "In all five cities I visited last month suppliers and subcontractors told me they were being a sked by some builders to take promissory notes for up to three or four thousand dollars in payment of services and materials. Some banks will discount that kind of paper on the credit of the holder, but the general attitude is that the industry needs a sound second mortgage plan or a guaranteed first mortgage with five and not more than ten per cent down."

WELL, WHAT DO THE BUILD-ERS THINK? WHAT DO THE SUPPLIERS THINK? We'll find out if this column is read this month. The answer will depend on whether we get some letters on the subject. (Continued to page 58)



And here's a fact about hot water that carries a lot of weight. Home buyers prefer automatic Electric Water Heaters! To have them completely satisfied with the homes you build—both now and in years to come—install the kind of water heating equipment your customers want.

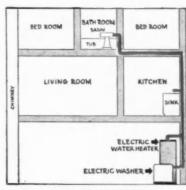
How to reduce construction costs and add customer features...



NON-ELECTRIC INSTALLATION

Construction costs can be reduced with Electric Water Heaters because there's no flue or vent, so installation can be made anywhere—in a closet, in the kitchen, in the bathroom, in the utility room. Hot water lines can be short, cutting piping cost.

Customers like Electric Water Heaters



ELECTRIC INSTALLATION

because they are: (1) AUTOMATIC (continuous hot water, no attention); (2) CLEAN (smokeless, sootless); (3) DE-PENDABLE AND TROUBLE-FREE (as electric light); (4) ECONOMICAL (fully insulated storage, short hot water lines); (5) SAFE (all electric, dependable temperature control); (6) FLEX-IBLE (can be installed anywhere, even in living quarters; no flue or vent).

Electric Water Heater Section NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
155 East 44th Street, New York 17, N. Y.

B&F . BRYANT ' FOWLER ' FRIGIDAIRE . GENERAL ELECTRIC . HOTPOINT . HOTSTREAM .

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REX . RHEEM . SELECTRIC . SEPCO . SMITHWAY . SUNBEAU . THERMOGRAY .

THERMO-WATT . TOASTMASTER . UNIVERSAL . WESIX . WESTINGHOUSE

It'S EASY TO WATER WATER HEATER!

... in a house wired for an Electric Range!



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## ROUND TABLE

(Continued from page 57)

WE WRITE THIS COLUMN AS WE GO ALONG with our discusion, and when we got that far, one of our young men pointedly stated that if the foregoing was not asking for letters he'd like to know how you do ask for them.

THERE IS A PEACE MAKER on the staff, and he pointed out that if the subject is hot enough to start a discussion by mail a whole cotton bale of letters will come in—in which case we can publish only the consensus. If the subject is not a real issue, no one will write, and we have nothing to worry about.

"SPEAKING OF HEAT," interposed our handicraft expert, who had just painted his house over a twoyear-old paint job, "what made the paint on my house blister in two years? I've got my idea. Maybe you have got another one. The house is insulated, walls and roof, and there were no louvres in the gables. I figure that the moisture in the house could go only into the insulation, because the sheathing is vapor proof. It had to go somewhere, and there were no louvres. It concentrated in the attic, and with two months of sub-freezing weather it froze there. With the slow thaw it found its way down the outside of the sheathing, and then out through the wood siding, and blistered the paint. In the last week of June there was still water in some of those blisters. I had to break them, and wait a few days for the siding to dry before putting on the new paint. I put in attic louvres and hope it solves the problem. Every insulated house should have louvres.

The response to that was that our young man asked why we didn't ask our readers to write some more letters about it, especially since we stated in this column that we never have solicited letters and do not intend to.

WHEN HE SAW the staff secretary put that down, he threw in the sponge, and said that he had a letter from Virgil Peterson, assistant manager, Red Cedar Shingle Bureau, about the item on page 146 of the May issue relative to cutting shingles while in the bundle for application at roof ridges. Mr. Peterson says that the suggestion is not based on sound construction since it seems to call for the application of the shingles along the ridges in the same manner as the shingles are applied throughout the roof surface. "Our recommendation." says Mr. Peterson, "for finishing ridges as well as hips, is that the modified 'Boston' type hip or ridge construction be used." He recommends a careful reading of the Certigrade Handbook.

(Continued to page 60)

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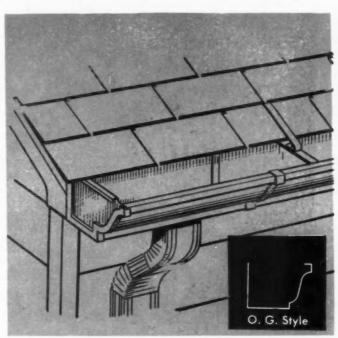
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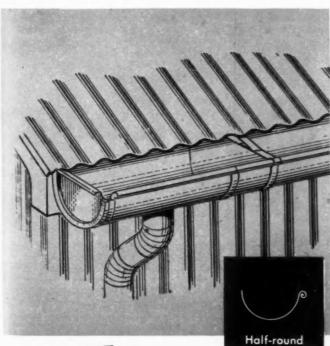
# REYNOLDS Lifetime ALUMINUM GUTTERS AND DOWNSPOUTS

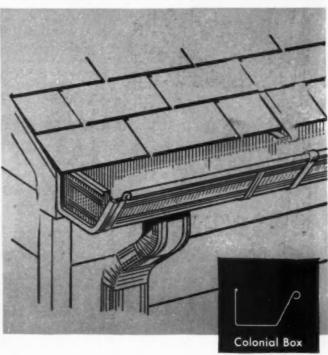
Visually, a non-staining white metal eave trim. Functionally, an efficient rain carrier of rustproof permanence at about half the cost of other rustproof materials. 5" gutters in the designs shown, each in either plain or stippled-embossed finish. Matching downspouts and complete fittings. Application by slip connectors. Write for literature.

### REYNOLDS METALS COMPANY

Building Products Division, Louisville 1, Ky.
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Reynolds Pioneering made Aluminum Competitive . . . take advantage of it!

### WORLD'S LARGEST PRODUCER OF ALUMINUM BUILDING PRODUCTS:

Shingles, Clapboard Siding, Corrugated and 5-V Crimp, Snap-Seal and Standing Seam Roofing, Weatherboard Siding, Built-up Roofing, Nails, Gutters, Wall Tile, Windows, Reflective Insulation, the "Alumi-Drome" (prefabricated utility building).



# BEAUTY and QUALITY for all

Duo-Laps bring luxurious, deep-horizontal shadows and genuine Red Cedar siding to ALL applications, ALL budgets. These versatile double-course shingles give old or new homes that rich "wide siding" effect at substantial savings. They're pre-stained in eight handsome colors, can be laid with full 12" or 14" exposure over solid or spaced sheathing.

#### PROTECTIVE, INSULATING

Duo-Laps' genuine Red Cedar is unexcelled as insulation—keeps homes cool in summer, warm in winter. Hand-dipped, butted, squared and tapered, they're easier to apply, more protective, longer wearing. Get beautifying, cost-cutting Duo-Laps for all-around siding satisfaction.

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STAINED SHINGLE CO.
GENERAL OFFICES COR. SPRUCE ST. AND DENNISON AVE.

COLUMBUS 8, OHIO

## EDITORS' ROUND TABLE

(Continued from page 58)

"WHY NOT," asked our young man, "invite a discussion from readers on that one. It is thoroughly consistent with our policy of not asking for letters."

Nobody paid any attention to him, because a hitherto relatively silent member chimed in with, "Well, if we can't get away from letters, here's one that doesn't tell us how good we are. It is from a small builder who tells us to cancel his subscription, and refund the unused balance in cash. The reason is that the magazine is of no further use to him because "The Republican majority in the Senate showed their contempt for the private housing interests, and all those engaged in building houses by not acting upon any housing legislation whatever." It was agreed and hoped that the builder had a just complaint, because we tried our best to exert telling influence against the passage of the housing legislation that was up for consideration.

The eastern editor was in for the July meeting, and reported that many builders in his eastern zone had expressed interest in the American Builder Better Detail plates, and had asked if these were to be made available in book form. The same question is raised frequently in all parts of the country. The answer is that the staff has in production the book that seems to be in demand. It should be ready for distribution soon.

The same question was raised regarding the series of articles on heating recently concluded. The answer is also the same. A reprint of the entire series in book form is in process of production.

IT WAS SUGGESTED DURING THE MEETING THAT OUR ANTI-PUBLIC HOUSING STAND BE SHELVED FOR A FEW MONTHS while Congress is not in session. The best answer to that was a letter from F. H. Gregory, an editor in London, England. He said, "May I congratulate you on your efforts in support of the private builder, and wish you success in your fight against public control. We, in this country, are deeply enmeshed in it, with all its consequential delays and frustrations. True, we are building houses in increasing numbers, but it is in spite of, rather than because of, public control. Bureaucracy is just a pipe dream. For every producer we have ten non-producers, and the cost of these non-producers is added to the cost of the home. . . .

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Incidentally, the writer of the letter is editor of The Quarterly Journal of the London Association of Builders' Foremen and Clerks of Works, and he wants to contact a similar organization in the United States.

### NATIONAL ELECTRIC

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ECONOMICALLY PRICED!

COMPLETELY APPROVED!

AVAILABLE NOW THROUGH LEADING ELECTRICAL WHOLESALERS!

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Sturdy One-Piece Body

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It does pay you. And here's why.

For almost half a century, we have concentrated all of our energies... our research, our designing talent, our manufacturing skill... on plumbing fixtures exclusively. During these years Eljer has developed, introduced and pioneered many of the fundamental improvements now used in the manufacture, design and styling of plumbing fixtures. The simplicity of Eljer's Renewable Brass Fittings is another engineering achievement.

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And why does this pay us? For the simple reason that all of the above has brought a great and ever-increasing volume of orders... one of the primary reasons for the growth, success and prosperity of our business.

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# MONTHLY REVIEW

### NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

## NAHB Regional Meeting in Texas Takes Up Low-Cost Housing Problem

The regional meeting of NAHB affiliates from Texas and Oklahoma, held in Fort Worth recently, drew over 200 builders from both states, and every chapter had at least 10 representatives present. A panel on low-cost housing, presided over by V. F. Buchek of San Antonio, was a feature event.

Following the regional meeting in Fort Worth, a regional secretaries conference was held for two days at Dallas

W. P. (Bill) Atkinson of Oklahoma City, regional NAHB vice president, opened the conference and set the theme for discussion of low-cost houses in the southwest. Participating in Buchek's panel were Roy Morgan, Tulsa; Oscar Seward III, Dallas; Roger Givens, Oklahoma City; Fred Searle, Amarillo; H. C. Thorman, San Antonio; Ed Dicker, Dallas; M. A. English, Dallas: Cameron Shropshire, Fort Worth; Sterling Hogan, Houston; C. L. Munday, Amarillo; Francis Morogh, Beaumont, and E. J. Burke, San Antonio.

Franklin D. Richards, FHA administrator, told home builders he believed it would be possible for them to meet the housing demand with the use of FHA Title 2 loans. He pointed out that Title 2 is less liberal than Title 6, but that it is possible for builders to get firm commitments in Title 2 on a basis on which volume building would continue

On the second day of the conference,

Tom Coogan of Miami, NAHB secretary, headed a panel on mortgage finance. Participating in this panel were Miles Strickland, Houston; Dow Zabolio, Houston; Dick Hughes, Pampa; Bob Adams, Tulsa; V. F. Buchek, San Antonio; E. P. Lamberth, Dallas;



W. P. (BILL) ATKINSON Regional vice president

Tommy Ryan, Fort Worth; Ben Wileman, Oklahoma City; and Buddy Loefler, Beaumont.

At the closing session, NAHB President, Milt Brock, complimented the Southwest on the lead it is taking in the work of the national association,

About 30 presidents and secretaries of local chapters attended the regional secretaries council in Dallas. They discussed National Home Week plans.

### National Home Week Gaining Momentum on National Scale

As the September 5 date for the start of National Home Week approaches, detailed plans are being completed by more and more chapters of NAHB, and the number of organizations participating locally has reached a proportion that gives national scope to the movement, as had been anticipated.

In Chicago, with the powerful Chicago Tribune behind the promotion, the Metropolitan Home Builders Association already has arranged for 75 homes to be completed and furnished by local stores. Another 50 will be completed, but unfurnished, and a third group will be shown in varying stages of construction.

The Long Island Home Builders Institute in New York is making similar plans. Cy Williams, public relations chairman, expects builders will have about 100 display homes in at least 60 different developments, about 40 per cent of which will be furnished. Prices will range from \$8,500 up.

Los Angeles and San Francisco, too, have big plans and the several associations of the Southwest in Texas and Oklahoma have pooled ideas to develop cooperative plans.

The public relations department of NAHB has sent out many suggestions which are being adopted and supplemented by local chapters.

The National Association of Real Estate Editors, which represents the largest newspapers and most important real estate pages all over the country, devoted its May-June bulletin to discussing National Home Week. All NAREE trustees are members of a committee for the week under the chairmanship of Conrad (Pat) Harness of the Washington Post.

National home and shelter magazines are evincing interest. Will Melthorn, building editor of House & Garden has expressed commendation. Mary Davies Gillies, interior and architectural editor for McCalls Magazine, reports that publication will include a house in the September issue in support of the week.

### Utah Builder Runs for Office

C. Taylor Burton, a director of the Utah Home Builders Association, is a candidate for the Utah State Senate on the Republican ticket. Mr. Burton is currently building low-cost houses in Salt Lake City. In 1947, he completed over 100 homes to sell under \$6,000.



REGIONAL secretaries banquet in Dallas which followed the Forth Worth meeting. At head table standing, are Frank Cortright, NAHB executive vice president, Grover A. Godfrey, Dallas secretary; Milton J. Brock, NAHB president; W. P. (Bill) Atkinson, regional vice president, and Tom Coogan, secretary of NAHB

### New Technical Service Department For NAHB Headed by Carl G. Lans



FRANK CORTRIGHT, NAHB executive vice president, welcomes Carl G. Lans, director of the new Technical Service Department of NAHB as he reports on the job

The National Association of Home Builders has established a new technical service department to aid home builders in solving construction problems. Prime object of the new department, according to Frank Cortright, executive vice president, is to develop the "economy house" which has been sponsored by the association.

The economy house, which varies in different regions, is being developed as the answer to the need for an acceptable house of good quality that can be built for less cost. It is not a stripped-down house, but complete.

Carl G. Lans of Arlington, Va., former assistant technical director in the Underwriting Division of FHA, will direct the new department. A native of Sweden, he was educated in New York public schools and attended the Engineering School of City College of New York and the School of Architecture at Columbia University. He worked 10 years for architectural and construction firms in New York, Miami and Los Angeles. He served FHA from 1938 until the present time. He is a registered architect and a member of the American Institute of Architects.

According to Mr. Lans, the department will collect data and suggestions from members of NAHB relating to cost savings in design and construction and will analyze these to report to the entire organization. It will study techniques of purchasing to find more economical methods of obtaining materials

In close cooperation with the National Bureau of Standards, it will study the relative economic merits of various unconventional building materials. It also will analyze building codes and FHA minimum construction

requirements, in cooperation with appropriate authorities, to help find ways of making effective revisions.

Various methods of cost accounting will be analyzed and the merits of the several systems reported to builder members. In cooperation with the AIA, it will seek to find a method of obtaining skilled architectural services at low cost.

The department also will assist in the organization of economy house committees in locals, and will initiate discussion panels among members of the locals, sub-contractors, building materials dealers and labor representatives to solicit cooperation of these groups in the economy house program.

### NAHB Directors Fall Meeting Will Be in Los Angeles

NAHB Directors will meet in a combined Pacific Coast Conference and directors meeting in Los Angeles from October 3 to 9. It will be one of the most unusual NAHB meetings.

The two Los Angeles affiliates of the national will play host to directors from other parts of the country and are planning that the program will honor NAHB President Milt Brock, their fellow townsman, in addition to including plenty of working sessions.

Following the Los Angeles meeting, the San Francisco builders have invited the participants to that city to tour housing projects in the Bay area.

### Seattle's Diversified Program Yields Good Labor Relations

The Seattle Master Builders Association years ago helped develop the escalator clause contract which has been very successful in eliminating labor difficulties in that area. There have been no labor strikes or serious jurisdictional disputes for years. Under the contract effective January 1, 1949, wage scales will be 13 cents higher than the present rate, based on Bureau of Labor statistics for March 1948. The wage raise is based on a cost of living index in effect nine months before the raise is paid.

The association contributes \$175 per month toward an apprentice program in which the Associated General Contractors and A. F. of L. carpenters also cooperate.

A small-homes plan bureau, developed by the association in cooperation with the American Institute of Architects is meeting ever increasing public response.

Recently the association arranged with news photographers to take pictures of builders' houses as samples of good construction.

### Pittsburgh Area Home Week Committee



CO-CHAIRMEN of the National Home Week committee for the Allegheny County Home Builders Association in Pennsylvania are Fred Cook, Duquesne Light Co., and Charles Keenan, Equitable Gas Co. Here, at left, is Mr. Cook, with Ralph Scherger, association president, center, and Mr. Keenan, right

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### E. B. Standish Is Elected To Lead Burlingame Chapter

The Peninsula General Contractors and Builders Association at Burlingame, Calif., elected E. B. Standish as its president at the recent annual meeting. Mr. Standish takes over just before the association moves into a building of its own in San Mateo.

Other officers include: Richard Deluchhi of San Bruno, vice president;



E. B. STANDISH
President, Burlingame Chapter

Walt A. Gould of San Carlos, secretarytreasurer. New directors are James H. Arthur, Perry Bygdnes and Harry Kime of San Mateo and Harry Sandow of San Carlos.

### Minneapolis Chapter Acquires New Office and New Executive

The Minneapolis Contractors and Builders Association has opened a new office of its own at 1750 Hennepin Avenue in Minneapolis under the direction of Harold Boss, 'new executive secretary. Mr. Boss has had ten years experience in organizational and legislative work, as well as a background in public relations.

The association has developed plans for a home show to be held October 1-9 in the Minneapolis Auditorium.

### NAHB Contest Seeks to Find Ideal Neighborhood Plans

With an eye to building better communities throughout the country, the Community Development and Shopping Center Committee of NAHB is sponsoring a nationwide contest among builders to find plans for the ideal neighborhood.

W. P. (Bill) Atkinson of Oklahoma City, chairman of the committee, has announced a series of awards in the regional and national competition. Prizes will be given for the best small groups of houses under 50 units with emphasis on economy housing, for best in the same category over 50 units, for the best residential community, best garden apartment of a multiple group and the best suburban shopping center. Three regional awards and three national awards are being offered in each class, plus honorable mentions.

### Cortright's Column

By Frank W. Cortright

Executive Vice President, National Association of Home Builders of the United States



At just about mid-year, some home builder, somewhere, completed the two millionth house to be built since VJ Day.

This fact, which reflects the intense speed of building today, opens some interesting possibilities. It emphasizes, for one thing, that since last fall we have been building at the rate of a million houses a year.

Now the \$128 question is: "What would happen if we continued to build a million houses a year for 10 years?"

There are some interesting answers to that one. Answers that will cut a lot of ground out from under public housing claims among other things. Answers that mean a lot better housing supply for America.

First, let's look at the statistics.

The usable housing supply at the end of this year is estimated at more than 34 million units. If we add 10 million units to that, here are some possibilities that would result:

Nearly 41/2 million units for newly formed families.

A 4 per cent vacancy rate while these new families come on to the market. Nearly 2½ million units to permit undoubling and to establish the vacancy reserve.

About a half-million units for replacement of disaster loss and three million units for displacement of old dwellings.

**This last is significant.** It means that enough houses will be available to make it possible to eliminate three million slum dwellings. Compare the demolition of three million housing units through the functioning of private enterprise building with the pitifully small number of units eliminated by costly government housing with its billions and billions of public expenditures and you have an impressive fact.

In other words, if our industry can maintain the pace it has set in recent months, we would be close to attaining the housing goals the "masterminds" tell us the nation needs. We would take care of undoubling. We would take care of new family formation. We could build up a vacancy reserve. And we would eliminate bad housing at a rate never before attained.

The moral is obvious. Everybody—government, do-gooders, public housers and everybody else who wants to "solve" our housing problems—ought to line up with our industry and make an all-out effort to help us keep building at the rate we have set. We have maintained all along that if builders were allowed to produce in heavy volume for a period of years, most of our housing difficulties would disappear.

Now come the statisticians and economists who tell us that this process actually is under way. The only "if" in the picture is "if" we can keep up the record-smashing volume of recent months. That being the case, everyone from the humble one-or-two-houses-a-year carpenter-builder on up through the White House ought to be cracking their backs to see that conditions are maintained to permit us to keep up the pace.

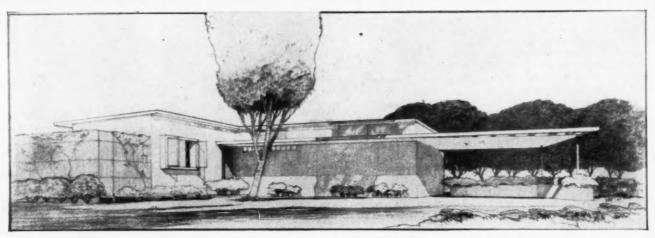
Along with this, we have had an encouraging growth in home ownership. It has spread almost equally through all income groups. Without counting farm homes in on the total, 51 per cent of our homes now are owner-occupied, a big jump over recent years.

So there we have it! We're building at a fast, stable rate that can

So there we have it! We're building at a fast, stable rate that can work us out of housing troubles; we are turning out a superior, improved product; home ownership is increasing rapidly; we are approaching a condition where bad housing automatically will have to close up.

And some people say we aren't doing a good job!

### Southern California Exposition Features Modern Home



ARCHITECT'S sketch of the \$15,000 ultra-modern home erected in Los Angeles for southern builders' show

The Construction Industries Home and Building Exposition of Southern California recently ended an 11 day run in Los Angeles. Milton J. Brock, NAHB president, was president of the huge show which was sponsored by 13 major construction associations.

Feature attraction was a \$15,000 ultra modern home constructed for display in the parkway opposite the exposition hall. Denver Markwith, Jr., and Lee B. Kline were architects, and Paul G. Evans was the builder.

In producing the home, builders combined many modern construction materials. Over the original wood frame structure, a plaster exterior was applied, with plaster interior featuring acoustical plastering in several of the ceilings. The roof was a white, heat reflecting composition. The car port was paved with asphaltic concrete and contained sufficient area for a complete turnary and

### Washington Sub-Chapter Starts School To Train Apprentices in Home Trades



SOME of the Washington builders who are interested in apprentice training are, left to right, Gerald Lee, Everett Searle, J. Ingram Medley, Donald Gingery and Roland Simon. Association's apprenticeship program is self-sustaining

### Portland Builds "Blandings House"



PORTLAND'S version of Blandings Dream House nears completion as the time approaches for the Selznick movie, "Mr. Blandings Builds His Dream House," to be released in the Oregon city. Jack Matlack, of the theater which will show the film, chats with Paul Bonelli, superintendent for the Portland builders unit

In the vicinity of Washington, D.C., a self-sustaining apprentice school for bricklayers and plasterers is teaching these trades to 140 young men in two-hour classes, two nights a week. The school was established by the Montgomery County sub-chapter of the Home Builders Association of Metropolitan Washington.

The association provided funds to get the school started, but it now pays its own way. Space was made available for the school through the cooperation of the Maryland Capital Park and Planning Commission and the Montgomery County Board of Education.

### NAHB Slum Clearance Publicity Creates Interest in Washington

The attention directed by NAHB toward the effectiveness with which Baltimore has been clearing slums by simple enforcement of building and health laws has aroused the interest of the Washington Board of Trade. The Board has recommended that a similar program be started in the District of Columbia,

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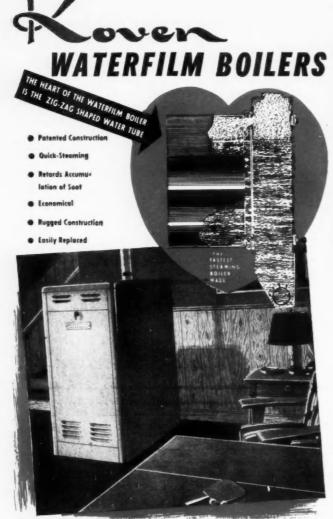
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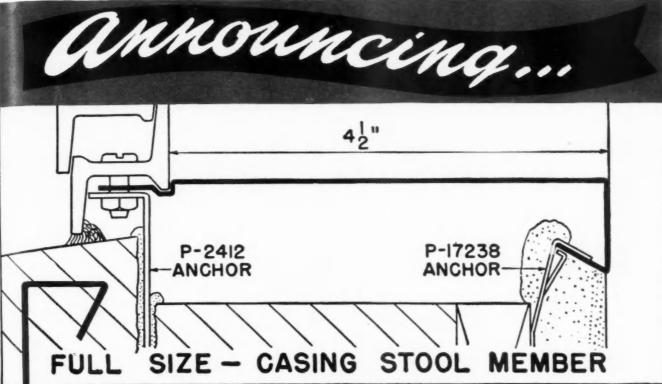
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Head and jamb members are of the same contour

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## for Residential Casements

• This is another new product in the extensive Truscon Steel Building Commodity line—another new Truscon product to encourage better, faster, more economical construction.

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"Space-Saver" Package Gives Small Kitchens Big-Kitchen Advantages!

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For further information, write Kelvinator Division, Nash-Kelvinator Corporation, Detroit, Michigan.

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# AMBARICAN BUILDAR D I T O R I A L

### **Chicagoland Festival**

NE of the most significant local adaptations of the National Home Week idea projected by NAHB is the ambitious program being undertaken in Chicago. Because of an unusual combination of opportunities and conditions, the Chicago Metropolitan Home Builders Association decided to become an integral part of a joint endeavor including the Chicago Tribune and the retail furniture and home furnishings dealers of the Chicago area.

The decision was made by the builders' Home Week committee when Nathan Manilow, president of the Chicago association, became a member of the Chicago Home Furnishings Council, and learned that the furniture dealers and the Chicago Tribune had already worked out partial plans for a furnishings festival to be held later than the date of National Home Week. Those plans presented the builders with a difficult problem in getting their demonstration homes furnished during the week of September 5. On the other hand, the furniture dealers had discovered no way of projecting their festival beyond temporary individual rooms to be built in their own stores and supplemented by window displays. Also, the Tribune recognized limitations in material for a month-long editorial promotion.

A joint meeting of the three principal factors was held, and the result is the Chicagoland Home and Home Furnishings Festival to be held from September 19 to October 21. A board of directors in charge of policies, ethics and arrangements includes home builders, retail lumber dealers, realtors, building material manufacturers, building financiers, retail furniture dealers, members of the State Street Council (department stores), executives of the Furniture Mart and executives of the Chicago Tribune.

A committee is selecting 50 to 75 houses from those submitted by builders, and an equal number of furniture dealers, and is matching the houses with the dealers. Prices of the homes range from less than \$10,000 to \$53,000, and they are located in all parts of the Chicago area. An interior decorating firm has been retained in an advisory capacity to keep the amount and cost of furniture and furnishings consistent with the price and size of each house. The Tribune is preparing a special home and home furnishings supplement for Sunday, September 19. More than 100 roughed-in houses and complete but unfurnished houses will be demonstrated for the purpose of showing concealed materials and new building techniques.

If, as seems likely, the Festival is the outstanding success that is expected, it should do more to encourage continuing purchases of homes, and to raise the standards of home furnishings than anything thus far attempted by a group of related industries acting as an educational and promotional unit in the home building field. Even if it falls short of expectations this year, the Chicago Festival is setting a new pattern of cooperative effort in the interest of showing the public what is available in new homes and home furnishings, and what private enterprise is accomplishing free of the dead hand of public housing and government controls.



Better design and more efficiency can be developed through study of living habits of today's families. Time and motion studies suggested

Courtesy of Plumbing and Heating Industries Bureau

DRESSING room adjoining bath provides space for storage units. Judicious use of mirrors adds depth and enhances beauty of both the rooms

### Bathroom Layouts Need Revamping

A N important factor in determining the value of a new house is the size, location, and number of bathrooms the house contains, and the quality of its plumbing. Yet the bathroom remains the most stereotyped room in point of design in the American home. Years of research and development by manufacturers have produced fixtures which make the bath beautiful, but experience shows that to be satisfactory a bathroom must also be efficient in use. The need today is for greater flexibility in design, and more careful planning of the space available. Not only should the placement of fixtures be well worked out but the fullest possible use made of the space if the bathroom is to fill its multiple roles efficiently.

"Bathrooms should be designed to meet the situation of the people who

use them," was the consensus of women interviewed by the Elier Co. on what women wanted in bathrooms. "What we need," a summary of their opinions states, "are more time and motion studies-of mother bathing a baby, and daughter getting ready for a date. Although there are few rooms where luxury is more appropriate, most families must stress the usefulness of their bathrooms. The family with one bathroom needs different facilities from the family with several, and the cottage and/or apartment bath need not copy the compactness of a hotel."

It was at the turn of the century that plumbing was brought in from the orchard, and the bathroom became an indispensable part of the American home. In old homes, spare bedrooms and hall ends were transformed into baths. In every new home, a small amount of space was allotted to the new room. Little thought was given to functional design. Housewives gloried in the gleaming white bathtub, and the American philosophy of personal hygiene was born.

In the years which have elapsed, the importance of personal hygiene has been nurtured by soap manufacturers and physicians alike. Not only is cleanliness a social must, but a health measure as well. As a result, the Saturday night bath has become a daily occurrence and social America the most fragrant society in the

All this has increased traffic into the bathroom to such proportions that the bath and a half are rapidly becoming standard specifications in the average home. This increased footage of floor space allotted to bathrooms

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does not necessarily increase the usefulness of the individual bath, since the basic bathroom plan continues to follow the standardized pattern adopted at the century's turn. The full bath is still granted the least amount of space; 5 feet by 7 feet being the accepted minimum. One of the most expensive rooms because of the cost of plumbing fixtures, it continues to be one of the most wasteful since occupancy is limited to one person at a time. As one authority states, "In designing the bath it is often forgotten that maximum economy of space is not necessarily good planning, or even good economy in the long run."

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The solution lies in discarding the idea that the bath is a fixed room of a standard size and type. Forthwith flexibility in design is obtained, and the way opened to incorporate some features which reason dictates (and women request) be included in a bathroom.

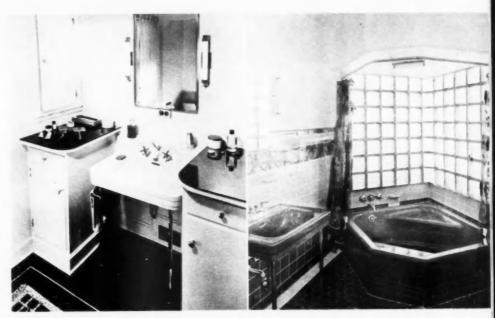
One important feature is ample storage facilities. Not only space for storing towels but for the inclusion of cosmetics, toilet tissue, cleansers, hot water bottles, shoe shine units, and bathroom scales. Even in minimum bathrooms storage space can be devised by setting the lavatory in a base cabinet or including a built-in wall cabinet. If the lavatory is installed against the outside wall, the counter can be extended the width of the room to include a dressing table, with cupboard and drawer space below. In the spacious bathroom, a storage cabinet might be installed at the open end of the tub.

Other suggested conveniences appropriate to the bath include space for hanging clothes; a place to sit; a built-in electric heater for chilly mornings and drying hair, and the installation of some type of ventilator.

Coved corners for easy cleaning; easy-to-clean wall surfaces; a grip rail over the tub; counter space around or above lavatory; a door lock that is self-opening from inside; good lighting correctly placed; plenty of towel racks (not over the tub), and a good-sized window, also not over the tub, are design details women consider essential.

This latter practice of putting the tub beneath the window is the number one flaw in contemporary bathrooms. Not only is it drafty for the bather but inconvenient when windows are raised or curtains are to be hung.

The essence of a good plan is the proper arrangement of fixtures in the allotted space for convenience in use at a minimum of cost. The wide variety of wall and floor materials



BUILT-INS increase utility of bathroom. Modern tubs are low for safety, convenience

Courtesy of Plumbing and Heating Industries Bureau

tor bathrooms currently available makes this kind of plan more feasible than heretofore. One ingenious design separates the fixtures into compartments. Thus the different units can be used simultaneously by two or three persons with complete privacy.

The plan lends itself to various treatments. In some homes a compact bathroom and separate dressing room are adjoining. In others, the bathtub and overhead shower are in one room and the lavatory and water closet in an adjoining room. Still another arrangement is to have the bathtub and overhead shower in one room with a powder or washroom on either side. This layout is the equivalent of two bathrooms.

For the family with growing children, twin lavatories with the water closet recessed for privacy will eliminate friction at mealtime. Another idea gaining favor is the installation of lavatories in bedrooms. In one modernization job where this was done, a water closet and shower were installed in a space the size of a closet between two bedrooms.

While the size of the bath and the equipment it contains are dependent upon the space available and the ultimate cost of the house, the elements of good design are inherent whether the bathroom be for a cottage or a mansion. In the long run, both space and budget will benefit from judicious planning.

Courtesy of Plumbing and Heating Industries Bureau



TWO examples of good bathroom planning. Note tubs are not placed under windows



WHILE a bathroom should be placed for convenience in use, a saving in piping costs can be effected by placing it directly above the powder room in a two story house, or, in a one-story home, back to back with kitchen. Fixtures by Kohler

TODAY'S bathrooms are often criticized as being too small. While size is a factor, the trouble is very often awkward arrangement of fixtures. A large bathroom, poorly laid out, can be inconvenient, while a moderate-size bathroom with fixtures arranged for easy access can offer maximum efficiency in use.

The plans shown are presented to stimulate new thinking and introduce new notes in bathroom layouts. The plumbing fixtures are arranged for economy of installation and maximum utility within the limitations of the individual room. The layouts eliminate waste space and provide sufficient clearance between fixtures. They also illustrate how windows should be placed to give proper light and ventilation.

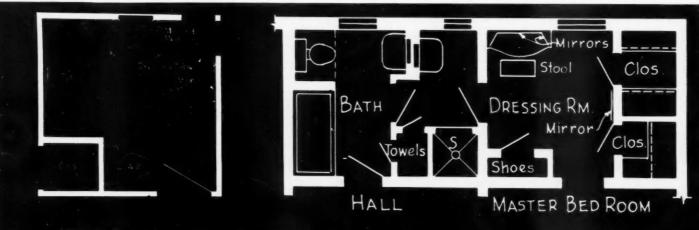
In planning bathrooms, the Plumbing and Heating Industries Bureau suggests the following ideas be considered:

While the bathroom should be placed where it is most convenient, a saving in piping costs can be effected by placing it directly above the kitchen, or, in a one-story home, back to back with the kitchen. Avoid, if possible, having any fixtures against an outside wall where severe cold weather might freeze and break the pipes.

The recommended size for the family bathroom is 6 feet by 8 feet, and no bathroom should be less than 5 feet wide. Space between fixtures should be no less than 6 inches. The lavatory, being the most beautiful fixture, should be located directly opposite the opened door, if possible. The toilet should be placed in the most secluded part of the room.

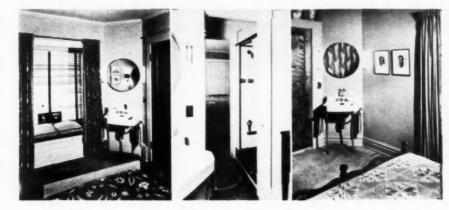
The bathroom door should be 28 inches wide and swing into the room; one that swings out is awkward. A 24 inch door will do but is often mistaken for a closet.

Provide ample space for storing linens; a medicine cabinet with a good-sized mirror, and plenty of light both artificial and daylight.



DESIGNED by the Briggs Manufacturing Co., this bathroom is an example of how storage space can be provided in even a small bath. By carefully planning fixture arrangement, the designer found space for the addition of a dressing table with storage drawers below for towels, cosmetics

THIS spacious layout is designed for the better than average home. Note entrance to dressing room is from master bedroom only. Here is provided space for hanging clothes closets, closet doors with mirrors, built-in tray cases and a dressing table. The family has access to the bathroom from the hall. The bathroom is partitioned for dual use. One portion contains a shower compartment and lavatory; the other is a full size bath



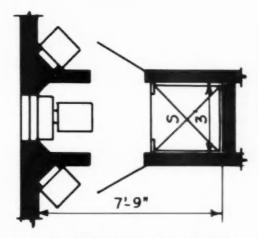
LAVATORIES in bedrooms cuts rush hour traffic in bathroom. Floor plan below

Courtesy of Plumbing and Heating Industries Bureau

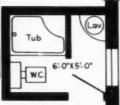
AN idea gaining acceptance, which is really a glamourised version of the old-fashioned pitcher and wash basin custom, is to install lavatories in bedrooms. This plan is efficient when modernizing for more plumbing facilities, or designing for teen-agers



PLAN shows how room can be built in 6x5 foot space



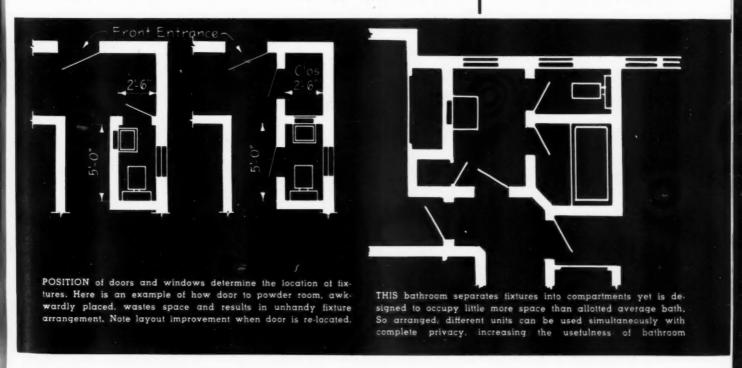
LAVATORIES IN bedrooms complete this bathroombetween-bedroom arrangement in remodeled home



THIS pint-sized bathroom designed by Crane Co., requires only a 6x5 foot space. The secret is corner lavatory and small low tub, 42x31 inches. Tub is ideal for shower receptor and for wee tots. Adults can take sit-down bath too



THESE floor plans illustrate economical arrangement of fixtures in the minimum-size bathroom. Concentrating all the outlets on one wall results in economy of piping. When door faces window across room, install tub to face lavatory and closet from end walls. Note that while bathrooms are small, tubs are not set under the windows



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#### Modern bathroom furnishings combine beauty of design with utility and durability

#### **Fixtures**

TODAY, manufacturers of bathroom fixtures are not only broadening their lines, but they are producing complete lines in a wide variety of distinctive styles and price levels to meet varying requirements. While no radical innovations in design are noted, the latest models offer the ultimate in convenience and efficiency

The use of flat space on all fixtures

is a new practical feature. Bathtubs have broad, flat rims; flat space is emphasized in new lavatories, and even water closets have ample flat space to conform to the new trend. As a safety measure, new bathtubs are lower and the bottoms are flat.

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In selecting fixtures, strength and durability plus ease of cleaning are factors to consider. Quality is another. One manufacturer cites the



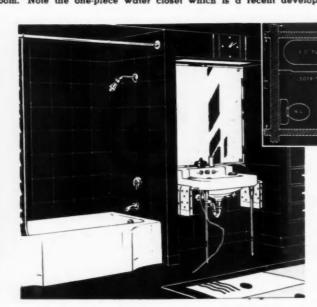
AMERICAN Radiator & Standard Sanitary Corp. fixtures are featured in this new-style bathroom. Note the one-piece water closet which is a recent development by manufacturers



THIS suggested floor plan and perspective of a modern bathroom was prepared by the Briggs Manufacturing Company. Note the new style fixtures have ample areas that

are flat in conformance with

MODERN fixtures of this type are offered builders by the Richmond Radiator Co.



KOHLER of Kohler here demonstrates a simple. practical arrangement to use floor space of moderate size. Free access is provided to all facilities. Note well-placed facilities for storage availability of two qualities of porcelain—one, regular, and the other, stainproof. By selecting a stainproof enameled bathtub you can assure your prospective buyer a tub that will be easy to clean and free from stains for the life of the house.

A shower either over the tub or in a compartment is virtually a must feature in new homes. For modernization, special types of showers can be installed without marring the walls. Shower cabinets, too, are suitable for modernization and can be installed in spaces as small as 32 inches square and 72 inches high.

Lavatories may be wall hung or have chromium or glass legs. Towel bars are sometimes an integral part of the legs or are attached to the sides. A recent innovation is the vanity lavatory. This consists of a lavatory encased in a cabinet which may be used to store toilet articles.

Because of its hygienic importance the water closet should be selected with the utmost care. The prevention of back siphonage has been given most careful attention by designers. Two major improvements in water closet design are the quiet operation feature and the fixture so designed it can be produced in a single unit—tank and seat in one piece.

There are three types of water closet bowls: the siphon jet, the reverse trap, and the washdown. They differ in the size of the water bowl, the trapway, and the depth of seal.

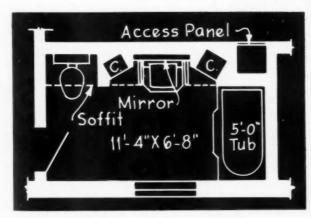
An optional fixture is the dental lavatory for washing teeth.



ELJER suggests this bathroom with two lavatories—a major step above minimum needs



WALL cabinets are essential. Here is a new model by Philip Carey Manufacturing Co.



ANOTHER bathroom design by Kohler of Kohler featuring the compartment idea while at the same time incorporating above average facilities for storage of towels, cosmetics and all the other items pertinent to bathroom usage



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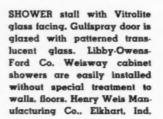


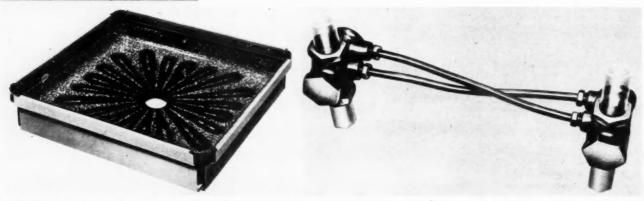
#### Showers—Accessories

T IS not too difficult today to go back in our thinking to the period of the last war. At that time bath room installations in new and remodeled homes, through necessity, included accessories of plastic or unfinished metal. They were a constant source of irritation to the owner, both in operation and appearance. Compare them now with the beautiful chrome-finished fixtures that are being produced in quantity today. The verdict will be that accessories of all types play a very important part in creating client satisfaction, and in complementing the other fixtures. For the purpose of this article.

For the purpose of this article, reference to accessories include medicine cabinets, towel bars, fittings of all kinds, shower heads and doors, toilet seats, and bathtub hangers. Because requirements for accessories are as varied as the types of residential construction, the leading manufacturers offer a complete line in a wide range of quality and price. Accessories are made in solid brass, nickel- and chrome-plated for the finest trade. Others are functional in design, and offer strength and beauty at low cost.

The added convenience of a separate shower stall in the bathroom is finding increasing favor with builders. This arrangement can take the form of a built-in unit which is part of the plan structure with metal frames and doors of metal and translucent glass. It can also be the type that is manufactured as a complete unit and is installed in new or old homes without special treatment to walls or floor.





ADAPTO Receptor for shower stalls. Milwaukee Stamping Co., Wis. "Aquatemp"; temperature guard for showers. Milton-Griffith Co.

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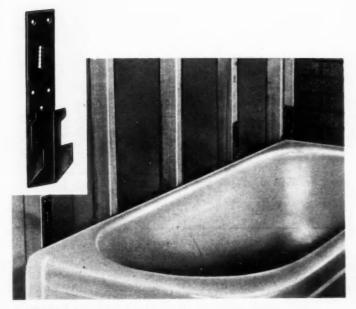
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Proper and adequate accessories and fittings add distinction and convenience to the bathroom, providing discerning builders with an effective selling medium



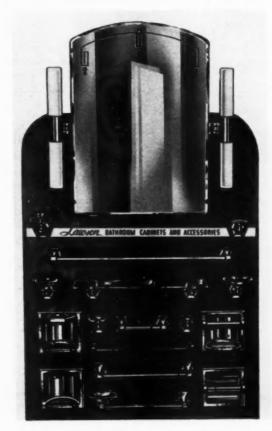
A HANGER that anchors tub to wall is manufactured by the Titewall Hanger Co., Chicago, Ill. Hanger is easy to install



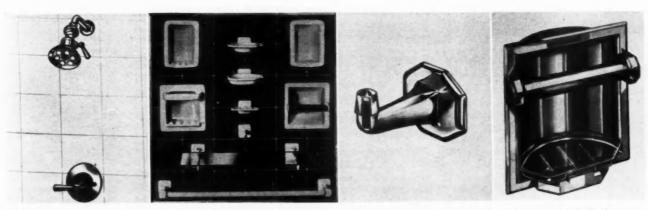
THE "Lifetime" seat moulded of solid Ethocel, is a product of the Federal Seat Company, Long Island, New York



FINGER tip control is a feature of the Moen Shower valve. Ravenna Metal Products Co., Seattle, Wash.



ABOVE is a reproduction of display of Lawson bathroom cabinet with light fixtures, and Puritan line of chrome accessories. Lawson Co., Cincinnati, Ohio



SPEAKMAN Co.'s pressure valve: Illinois Porcelain Co. accessories. Clothes hook and soap holder made by Marsh Products

#### Built-in features used singly or in conjunction with mirrors add greatly

to the attractiveness and usefulness of bathroom

HOW often Mr. Builder, have you heard it said, "There's not enough cabinet space available". This has been true to a great extent, particularly as it applies to the bathroom. In all fairness to the builder, however, excessive construction costs has made necessary a paring down to the bare essentials.

The emphasis in the modern home of today is more and more toward built-in fixtures that become an integral part of the room equipment. In the simplest arrangement, it often takes the form of the cabinet that is placed over the lavatory as a general catch-all. Then again, it may include the more elaborate type setup, such as a built-in counter with storage space below, towel and storage cupboards, and decorative open shelves with recessed lighting effects. The need for additional storage space is imperative because of the many activities that are carried on in this room.

In the production of bathroom storage fixtures, manufacturers today have centered their activity on a number of basic units, chief of which is



BATHROOM is almost walled-in with glass. Colored Vitrolite used with wood cabinets

the medicine cabinet placed in the wall above the lavatory. This fixture, which has been the bathroom standard bearer for years, has undergone some drastic changes.

Extension of storage and utility areas, beyond the scope of the basic units described, has largely been a

custom-made job. The built-in drawers, cupboards and counters illustrated are now being produced in both wood and metal in quantity. Built-in units of this character, used in conjunction with mirrors and glazed tile surfaces, add greatly to the modern bathroom.

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BATHROOM installations. Storage provided by built-in cabinets. Fixtures at left by Plumbing and Heating Industries Bureau

COMPLETE dressing room facilities provided in bathroom above. Fixtures by the Kohler Manufacturing Co., Kohler, Wis.



AN interesting arrangement of fixtures are shown above. Projecting counter extends along laratory wall, with stub walls providing separation between fixtures. The Mirro-Glo cabinet above the laratory has fluorescent side fixtures with plastic light diffusers that reduce glare



AMPLE storage space for personal articles are made available in the two side compartments of the Miami-Carey Imperial cabinet. The recessed mirror in the center portion is illuminated by indirect lighting behind opal glass panel

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bove. Wis. THROUGH the abundance of drawers, counters and storage areas, this bathroom cares for every possible need. An interesting feature is the two-way closet which can be opened either from the bathroom or the adjoining bedroom



#### Floors — Walls

Bathroom wall and floor covering material is available to building industry in a wide range of colors and patterns

today. Manufacturers of bathtubs and other fixtures started a definite trend, when they designed their equipment with an eye to beauty and color as well as to space and time-saving convenience. Since then architects and designers have given greater consideration to the

floor materials.

A wealth of material, both for floors and walls, is now available. The manufacturer has placed at the disposal of the builder a large number of patterns in a wide range of color. Every need and requirement of a client, with respect to quality, style and price, can now be met. The wide range of materials offer unlimited possibilities for individual expression. These extend from patterned wall papers, finished with washable plastic, to the various types of linoleums, asphalt and rubber tiles, through the large selection of tiles, ceramics, structural glass and mirrors.

LTHOUGH it is the smallest

A room in the house, the bath-

room probably has more new features per square inch than any

other room in the average home of

selection of bathroom wall and

An interesting fact that is often overlooked, when determining the type of floor and wall surfaces to be used, is that a combination of materials may be used with perfect freedom.. In the majority of cases such combinations are preferred. It tends to lighten the appearance of the room, and is a distinct departure from the usual clinical approach to bathroom decoration. A method that has been successfully used in a great many cases is to employ glazed materials that are impervious to water around the tub, shower and lavatory, and then introduce materials of a softer texture on the balance of the walls. This avoids the hard metallic appearance that so often occurs with use of only one material.

Manufacturers and builders alike are looking with anticipation at the vast number of outmoded houses that exist in every community throughout the country. The owners of these houses are making a mental comparison between the old Keene's cement wainscot, plastered walls and old style fixtures of the bathroom that has served them so well and long and between the present day, colorful creations that can be seen in most new houses.

In this anticipated market, only a minimum of effort would have to be expended to produce the desired results. The new surfaces can be applied directly over the old walls. New floors can be applied in a similar manner. With the use of these new products, the job of giving the old bathroom the "new look" is greatly simplified.



INSTALLATION of marbleized rubber tile floor. Fremont Rubber Co., Fremont, Ohio

HAKO asphalt tile is used over concrete; moisture proof. Made by Hachmeister Inc.

THIS modern bathroom has a floor of black and white Marbelle Linoleum with inset strips of plain black. Ample storage space is provided for towels

Photograph by the makers of Armstrong Linoleum

1948.

in a use of of giv-"new





PLASTIC-FINISHED Marlite panels on walls. Marsh Wall Products, Inc., Dover, O.



WALLS of this bathroom are completely covered with contrasting shades of colored Vitrolite structural glass. Surface is easy to clean. Libby-Owens-Ford Glass Co.



COUNTER and backsplash provide sanitary surface for cupboard, dressing table



COMPLETE installation of zinc wall tile in bathroom. Chromite Co., Chicago, Ill.



STYRON plastic tiles on walls, arch and ceiling. Dow Chemical Co., Midland, Mich.



A dressing-room installation of Kencork; David E. Kennedy, Inc., Brooklyn, N.Y.



THIS bathroom combines Flex-Flor and Wall-Flex, products of R.C.A. Rubber Co.



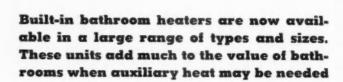
MOISTURE-proof surface with Interlocking plastic tile; Pittsburgh Tile Co.



Heaters

-11116

Authorition Color Color Character Ch



ABOVE is a typical built-in bathroom heater installation. The unit is electrically operated. manufactured by Electromode Corporation. The electrical unit at right is manufactured by Philip Carey Manufacturing Company

UXILIARY built-in heat for A bathrooms adds considerably to the usability and comfort of those rooms, especially during seasons when the central heating plant is not being operated. A number of manufacturers now produce units suitable for use in bathrooms. They may be operated by electricity or gas. The safety and convenience factors involved in having the heaters built in as part of the standard bathroom equipment should never be underestimated by any home builder. A bathroom thus equipped has a "plus" feature which will appeal to the future buyer or occupant, and can be an economical sales aid to the speculative or operative builder.

It is not economical nor practical to operate a central heating plant to warm a bathroom sufficiently to bath an infant. Mothers without a built-in bathroom heater must either operate the kitchen range oven long enough to warm the kitchen to the correct temperature, or move a portable heating unit to the bathroom and use that during the months the child must have above average room heat for the morning bath.

The units are also invaluable when a small amount of heat is desired to bring bathroom temperature up for a morning shower. Older persons who require more heat always appreciate the convenience and comfort of an easy way to raise bathroom temperature.

The time to install a bathroom heater is when the house is being constructed. Wiring, piping, flues or any of the other supplemental features required for efficient operation of a unit can be installed economically to work at maximum efficiency during the regular course of construction. Many built-in bathroom heaters which can be thermostatically controlled are now on the market.

THE large unit above is made by the Frank Adam Electric Co. and like other such units, can be thermostatically controlled. Other built-in bathroom unit heaters that operate by gas are on the market

#### **MANUFACTURERS**

#### **Producing Materials and Equipment** for Use in New and Existing Bathrooms

Accessories

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Autoyre Co., Oakville, Conn.
Philip Carey Mfg. Co., Lockland, Cincinnati,

Ohio
Columbus Plastic Products, Inc., 1601 W. Mound
St., Columbus, Ohio
Crane Co., 836 S. Michigan, Chicago, III.
Elier Co., Ford City, Pa.
Gerity-Michigan Corp., Adrian, Mich.
Hall-Mack Co., 1344 W. Washington Blvd., Los
Angeles, Calif.
Illinois Porcelain Enamel Co., 420 S. Winchester
Ave., Chicago, III.
F. H. Lawson Co., Evans & Whately Sts., Cincinnati, Ohio H. Lawson

F. H. Lawson Co., Evans & Whately 37s., Cincinnati, Ohio
Marsh Wall Products, Inc., Dover, Ohio
Chas. Parker Co., 412 Jordan, Meriden, Conn.
Reliable Metal 'Novelty Co., 19 W. 26th St.,
New York, N.Y.
United Wire Goods Co., Inc., 232 5th Ave.,
New York, N.Y.

**Brass Goods** Barnes Mfg. Co., 651 N. Main St., Mansfield, Ohio Cauhorn Distributing Co., 9999 Broad St., De-

caunorn Distributing Co., 9779 Broad St., Detroit, Mich.
Chicago Faucet Co., 2712 N. Pulaski Rd., Chicago, Ill.
Crane Co., 836 S. Michigan. Chicago, Ill.
Eljer Co., Ford City, Pa.
The Humphryes Mfg. Co., 201 East 5th St.,
Mansfield. Ohio
Imperial Brass Mfg. Co., 1216 W. Harrison St.,
Chicago, Ill.
Kohler Co., Kohler, Wis.
Lehman Sprayshield Co., 3351 York Rd., Philadelphia, Pa.
Ravenna Metal Products Co., 6518 Ravenna Ave.,
Seattle, Wash.
H. B. Salter Mfg. Co., 9th and Adams, Marysville, Ohio

ville, Ohio Scoviile Mfg. Co., Waterville, Conn. H. B. Sherman Mfg. Co., 22 Barney St., Battle Creek, Mich. Sloan Valve Co., 4300 W. Lake St., Chicago, Ill. Speakman Co., 30th and Spruce Sts., Wilming-ton, Del.

**Built-in Heaters** Frank Adam Electric Co., 3650 Windsor, St. Louis, Mo. Philip Carey Mfg. Co., Lockland, Cincinnati,

Electromode Mfg. Co., I Leighton Ave., Roches-

Electromode Mfg. Co., I Leighton Ave., Rochester, N.Y.

Markel Electric Products, Inc., 151 Seneca St., Buffalo, N.Y.s.
Rheem Mfg. Co., 570 Lexington Ave., New York, N.Y.

Shepler Mfg. Co., 1312 Sheffield St., Pittsburgh. Thermador Electric Mfg. Co., 5119 Riverside Drive, Los Angeles, Calif.

Cabinets

Bennett Mfg. Co., Alden, N.Y. Philip Carey Mfg. Co., Lockland, Cincinnati,

Ohio arr, Adams & Collier Co., 11th & Jackson St., Control Carr, Adams & Collier Co., 11th & Jackson St., Dubuque, Iowa Columbia Metal Box Co., 360 E. 143rd St., New York, N.Y. Copco Steel Engineering Co., 14035 Grand River

Ave., Detroit, Mich.
Crane Co., 836 S. Michigan, Chicago, III.
Curtis Companies, Inc., 1200 S. Second, Clinton,

lowa Faries Mfg. Co., 1036 E. Grand Ave., Decatur, III. Farley & Loetscher Mfg. Co., Seventh & White,

Dubuque, Iowa Fluorescent Lighting Co., Monticello, N.Y. J. R. Goslee Co., 1807 Columbus Rd., Cleveland,

Ohio Grote Mfg. Co., Lafayette and Grandview, Belle-

Grote Mfg. Co., Lafayette and Grandview, Bellevue, Ky.
Huttig Mfg. Co., Muscatine, Iowa
Ideal Cabinet Division, Deslauriers Column
Mould Co., 7722 Joy Rd., Detroit, Mich.
Ideal Co., Waco, Texas
F. H. Lawson Co., Evans and Whately Sts., Cincinnati, Ohio
A. Marchand, Inc., 680 Fifth Ave., New York.
Mirro-Glo Cabinet Co., 3131 W. 49th Place,
Chicago, Ill.
Morton Mfg. Co., 5105 W. Lake St., Chicago, Ill.
Muschler Bros.. Nappanee, Ind.
Porcelain Metals Corp., 1400 S. 13th St., Louisville, Ky.
Roach & Musser, Muscatine, Iowa
Standard Stamping and Perforating Co., 3129
W. 49th Place, Chicago, Ill.
Standard Steel Cabinet Co., 3711 N. Milwaukee
Ave., Chicago, Ill.
Toledo, Plate & Window Glass Co., 1041 Utica
St., Toledo, Ohio

Alliance Ware, Inc., Alliance, Ohio American Radiator & Standard Sanitary Corp., Bessemer Bldg., Pittsburgh, Pa. Boyle Mfg. Co., 5100 Santa Fe Ave., Los An-geles, Calif.

Briggs Mfg. Co., 3001 Miller, Detroit, Mich. W. A. Case and Sons, 33 Main St., Buffalo, N.Y. James B. Clow & Sons, 201 N. Talman Ave., Chi-cago, III. cago, III.
Crane Co., 836 S. Michigan Ave., Chicago, III.
Elijer Co., Ford City, Pa.
Humphreys Mfg. Co., 201 E. Fifth St., Mansfield,

Illinois Porcelain Enamel Co., 420 S. Winchester Illinois Porcelain Enamel Co., 420 S. Winchester Ave., Chicago, III.
Ingersoll Utility Unit Div., Borg-Warner Corp., 321 Plymouth Ct., Chicago, III.
Kohler Co., Kohler, Wis.
Richmond Radlator Co., 19 E. 47th St., New York, N.Y.
E. G. Smith Mfg. Co., 445 N. LaSalle St., Chicago, III.

cago, III. Standard Fabricating Co., 1400 W. Armitage, Chicago, Ill.
Union Sanitary Works of the N. O. Nelson Mfg.
Co., Noblesville, Ind.
Universal Sanitary Mfg. Co., New Castle, Pa.

#### Floor and Wall Materials

Acorn Plastic Engineers, Inc., 561 E. 18th St., Erie, Pa. American-Franklin-Olean Tile Co., Lansdale, Pa. American-Structural Products Co., Toledo, Ohio Continental Radiant Glass Heating Corp., N. Hackensack, N.J. Architectural Tiling Co., Inc., Keyport, N.J. Armstrong Cork Co., E. Liberty St., Lancaster, Pa. Atlantic Tile Mfg. Co., Matwan, N.J. B. Mifflin Hood Co., Daisy, Tenn. Barclay Mfg. Co., 385 Gerard Ave., New York, N.Y.

Barclay Mfg. Co., 385 Gerard Ave., New York, N.Y.

Bird & Son, Inc., 47 Wilson St., E. Walpole, Mass.
California Art Tile Corp., Richmond, Calif.
Cambridge Tile Mfg. Co., Cincinnati, Ohio
The Philip Carey Mfg. Co., Wayne Ave. at
Cooper, Cincinnati, Ohio
Carlyle Tile Co., Ironton, Ohio
Chicago Plastic Tile Mfg. Co., 3069 W. Fifth
Ave., Chicago, Ill.
Chromite Co., 141 W. Jackson Blvd., Chicago, Ill.
Congoleum-Nairn, Inc., Kearney, N.J.
Danbury Rubber Co., Danbury, Conn.
Dow Chemical Co., Midland, Mich.
Formica Insulation Co., 4614 Spring Grove Ave.,
Cincinnati, Ohio

Cincinnati, Ohio
Fremont Rubber Co., Fremont, Ohio
General Tile Corp., El Segundo, Calif.
Gibbs Boardtile Corp., 615 N. Aberdeen St.,
Chicago, Ill.
Gladding, McBean & Co., Los Angeles, Calif.
Hood Rubber Co., 98 Nichols Ave., Watertown,

Johns-Manville, 22 E. 40th St., New York, N.Y. David E. Kennedy, 58 Second Ave., Brooklyn, N.Y.

American Tile & Rubber Co., Perrins Ave., Tren-

N.Y.
American Tile & Rubber Co., Perrins Ave., Trenton, N.J.
Marsh Wall Products, Inc., Dover, Ohio
Masonite Corp., III W. Washington St., Chicago.
Mastic Tile Corp. of America, IS3 W. 57th St.,
New York, N.Y.
Meridian Plastics, Inc., Byesville, Ohio
Metal Tile Products, Inc., Hastings, Mich.
Moided Tile Dept., C. F. Church Mfg. Co.,
Holyoke, Mass.
Mosaic Tile Co., Zanesville, Ohio
Thos. Moulding Mfg. Co., 165 W. Wacker Dr.,
Chicago, III.
Murray Tile Co., Cloverport, Ky.
National Tile & Mfg. Co., Anderson, Ind.
National Tile & Mfg. Co., Anderson, Ind.
National Tile Board Co., 1314 Blondell Ave.,
Bronx 61, New York City, N.Y.
Olean Tile Co., Olean, N.Y.
Pacific Clay Products Los Angeles, Calif.
Pacific Tile & Porcelain Co., Hynes, Calif.
Pittsburgh Corning Corp., Pittsburgh, Pa.
Plastic Tile Co., Terminal Warehouse, Pittsburgh, Pa.
Plastic Tile Co., of America, 2725 Pittsburgh Ave.,
Cleveland, Ohio
Plastic Tile Corp., 2446 Indiana Ave., Chicago.
Promona Tile Mfg. Co., Los Angeles, Calif.
Prestile Mfg. Co., 2860 N. Lincoln Ave., Chicago.
R. C. A. Rubber Co., 1833 E. Market St., Akron,
Ohio
Robertson Mfg. Co., Trenton, N.J.
S. & W. Moulding Co., 790 Parsons Ave., Colum-

Ohio
Robertson Mfg. Co., Trenton, N.J.
S. & W. Moulding Co., 990 Parsons Ave., Columbus, Ohio
Sloane-Blabon Corp., 295 Fifth Ave., New York.
Sparta Ceramic Co., East Sparta, Ohio
Standard Coated Products Co., 350 Fifth Ave.,
New York, N.Y.
Steel Wall Tile Co., 1706-10 W. North Ave., Chi-

Steel Wall Tile Co., 1706-10 W. North Ave., Chicago, Ill.
Summitville Face Brick Co., Summitville, Ohio Technical Appliance Corp., Sherburne, N.Y. Tile-O-Chrome Corp., Chicago, Ill.
Tile-Tex Corp., Chicago Heights, Ill.
Tylac Co., Monticello, Ill.
United Plastic Tile Co., 855-A Commonwealth Ave., Boston, Mass.
United States Quarry Tile Co., Canton, Ohio U. S. Rubber Co., 1232 Avenue of the Americas, New York, N.Y.
U. S. Stoneware Co., Talmadge, Ohio Upson Co., Lockport, N.Y.

Uvalde Rock Product Co., Azrock Div., Frost National Bank Bidg., San Antonio, Texas Eugene Van Houten Associates, 350 Fifth Ave., New York I, N.Y. Vikon Tile Co., Washington, N.J. Wallace Mfg. Co., Tenth and Fayette, North Kansas City, Mo. Wright Rubber Products Div., Taylor Mfg. Co., 3056 W. Meinecke St., Milwaukee, Wis.

#### **Glass Block Ventilators**

Air Rectifiers, 3734 N. Southport, Chicago, III.
Consumers Co., 228 N. LaSalle, Chicago, III.
Mill Bldg. Products, Inc., 2036 E. 22nd, Cleve-land, Ohio
Winco Ventilator Co., 4725 Goodfellow, St.
Louis, Mo.

#### **Metal Mouldings and Trim**

Armstrong Cork Co., Material Div., Lancaster, Pa. B. & T. Metals Co., 425 W. Town St., Columbus,

B. & T. Metals Co., 425 W. Town St., Columbia, Ohio Herron-Zimmers Moulding Co., 3900 E. Outer Drive, Detroit, Mich. Loxite Moulding Co., Chicago, III. Macklanburg-Duncan Co., 123 N.W. 23rd St., Oklahoma City, Okla. Marsh Wall Products, Inc., Dover, Ohio Metal Trims, Inc., 2357 Wilson, Campbell, Ohio S. & W. Moulding Co., 990 Parsons Ave., Columbus, Ohio Trimedge, Inc., 4021 Mahoning Ave., Youngstown, Ohio R. D. Werner, Inc., 295 Fifth Ave., New York

town, Ohio R. D. Werner, Inc., 295 Fifth Ave., New York Youngstown Mfg. Inc., 70 S. Prospect St., Youngs-town, Ohio Wooster Products Co., Wooster, Ohio

#### Septic Tanks

Black, Sivalls & Bryson, Inc., Power & Light Bldg., Kansas City, Mo. Crane Co., 836 S. Michigan Ave., Chicago, III. General American Transportation Co., 135 S. LaSalle St., Chicago, III. Kaustine Co., Inc., Perry, N.Y. William B. Pollock Co., 99 Andrews Ave., Youngstown, Ohio Rheem Mfg. Co., 570 Lexington Ave., New York. San-Equip, Inc., 1100 East Brighton, Syracuse, N.Y. Warren City Mfg. Co., Warren, Ohio

#### **Shower Stalls**

Fiat Metal Mfg. Co., 1205 Roscoe St., Chicago. Gerity-Michigan Corp., Adrian, Mich. The Mills Co., 945 Wayside Road, Cleveland, Ohio Milwaukee Stamping Co., 824 S. 72nd St., Mil-waukee, Wis. Shower Door Co. of America, 973 Peachtree St., Atlanta, Ga. Tiletone Co., 2323 N. Wayne Ave., Chicago, Ill. Henry Weis Mfg. Co., 941 Oak St., Elkhart, Ind.

#### **Toilet Seats**

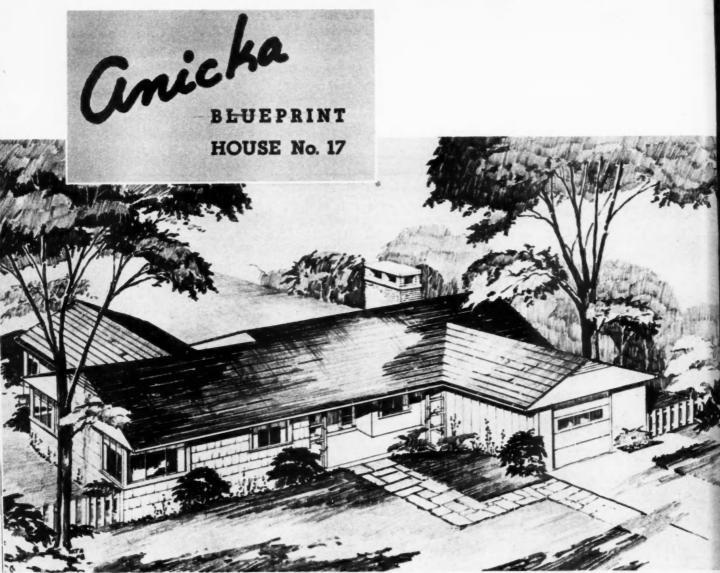
Toilet Seats

Albrecht Mfg. Co., Kewaunee, Wis.
Benis Mfg. Co., Sheboygan Falts, Wis.
Beneke Corp., Columbus, Miss.
Braun Mfg. Co., 1655 N. Kostner Ave., Chicago.
Bre Sanitary Seat Corp., 53 Walker, Hyde Park,
Boston, Mass.
C. F. Church Mfg. Co., Holyoke, Mass.
Century Plastic Products, Inc., 1444 Hamilton,
Cleveland, Ohio
Coyne & Delaney Co., 850 Kent Ave., Brooklyn.
Crane Co., 836 S. Michigan, Chicago, Ill.
Dow Chemical Co., Midland, Mich.
Durst Mfg. Co., 409 Lafayette St., New York
General Plywood Corp., Louisville, Ky.
General American Transportation Corp., Plastics
Div., 135 S. LaSalle St., Chicago, Ill.
Gerity-Michigan Corp., Adrian, Mich.
Keystone Brass & Rubber Co., Inc., 2705 North
Broad St., Philadelphia, Pa.
Kohler Co., Kohler, Wis.
Luzerne Rubber Co., Dewey St., Trenton, N.J.
Monarch Sanitary Products, Inc., 930 Newark,
Jersey City, N.J.
Pearl Wick Corp., 2750 First Ave., Astoria, Long
Island, N.Y.
Plastic Molded Arts, Inc., 12th St. and 44th Ave.,
Long Island City, N.Y.
Plumbers Woodwork Co., Algoma, Wis.
Precision Specialties, 220 N. Western Ave., Los
Angeles, Calif.
Royal Mfg. Co., Newnan, Ga.
Standard Tank & Seat Co., Inc., Camden, N.J.
Swedish Crucible Steel Co., 8549 Butler at Oscar,
Detroit, Mich.
Van Arnam Mfg. Co., Fort Wayne, Ind.

Van Arnam Mfg. Co., Fort Wayne, Ind. Wright Rubber Products, Racine, Wis.

#### **Tub Hangers**

William B. Lucke Co., 514 Railroad Ave., Wil-mette, Ill. Titewall Hanger Co., 1458 W. 87th St., Chicago



FOLLOWING the modern trend, the service units of this house face the street front with living rooms toward the rear

#### **Planned for Informal Living**

THIS month's blueprint house comes from the office of Walter T. Anicka, architect, Ann Arbor, Mich. The house follows the trend popularized by this young designer, a trend which has had widespread acceptance from the building public.

Most people like the modern ranchtype house in a modified form. They like the comfort and convenience that such a house gives them with its close relationship and overlapping functions of room areas. Large glass surfaces, now being used with greater frequency, have added an attractive appeal to home owners. Large windows give occupants a sense of freedom within the house and a clear view of surroundings.

The modern ranch house, with all

rooms on one floor and with its low, rambling effect, has captured the imagination of the American public. This type of house is being built in increasing numbers in all sections of the country. In some areas, the flatroof type without a basement is preferred because of climatic conditions. In other parts, a modified form of the ranch house with gently sloping roof, such as the one shown herein, is preferred. In either case, the consensus of opinion is that a ranch house eliminates stair climbing and concentrates all activities on one floor.

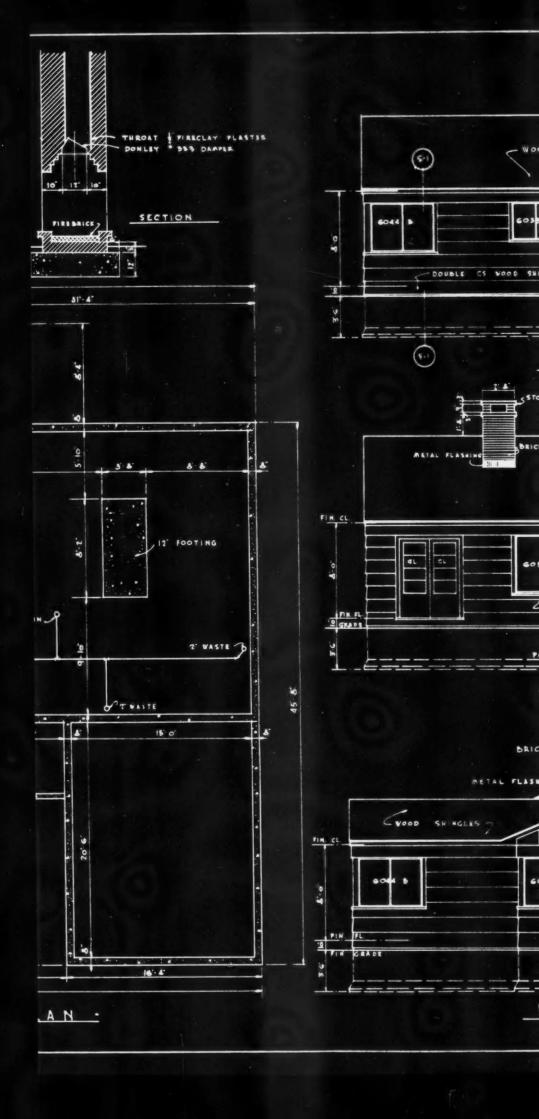
An examination of Anicka's plan indicates that the service units have been oriented toward the street front, with the living portion and the main bedrooms facing toward the garden in the rear. Circulation throughout the house is unusual. From the reception hall, access to all rooms is possible without using any one room as a traffic artery.

An unusual feature is the two-way fireplace that forms a division between living and dining room. The opening in this fireplace extends through so that it can be used in either room. The over-sized kitchen provides ample space for food preparation and storage, informal eating and laundry facilities. A small but efficient utility room adjoins the kitchen. This house with its compact plan arrangement is small enough so that it can be built on a normal-sized city lot.

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DONLEY SES DAMPER PLEXIBLE PIRE SCREEN C.O. 1 (4. 31. 1/2 STORAGE SECTION FIRE BRICK, FIREPLACE DETAIL SCALE TITO DOUBLE CS VOOL 4-4 14'-0 31'-4" 12-8 METAL PLASE FIH. CL. UNEXCAYATED 12 FOOTING 4" CONC. SLAB OVER G"GRAVEL SUB BASE G"+G" TIO MESS FLOOR DRAIN P PH FL. T WASTE B 56. PT WASTE 15'0" out the 4 50115 ception UNEXCAVATED 0 possible G' CONC. SLAD n as a METAL FL wo-way on be-CYOOD SHINGLES n. The extends ised in kitchen l prepeating all but ns the ompact ugh so 14'-4" 15.0 16'-4" al-sized 49'- 6

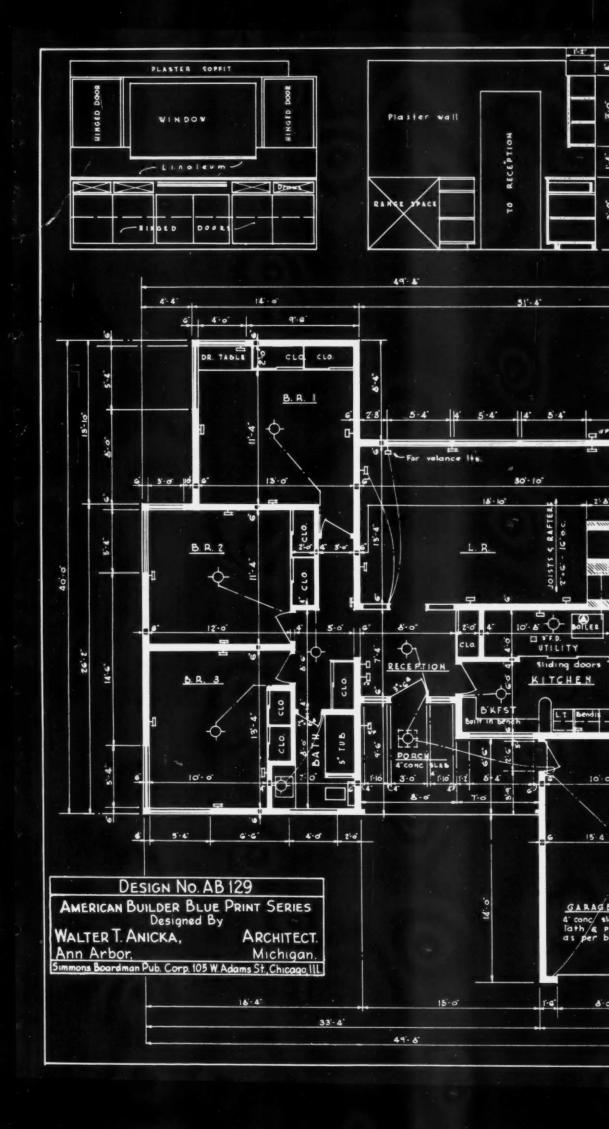
FOUNDATION

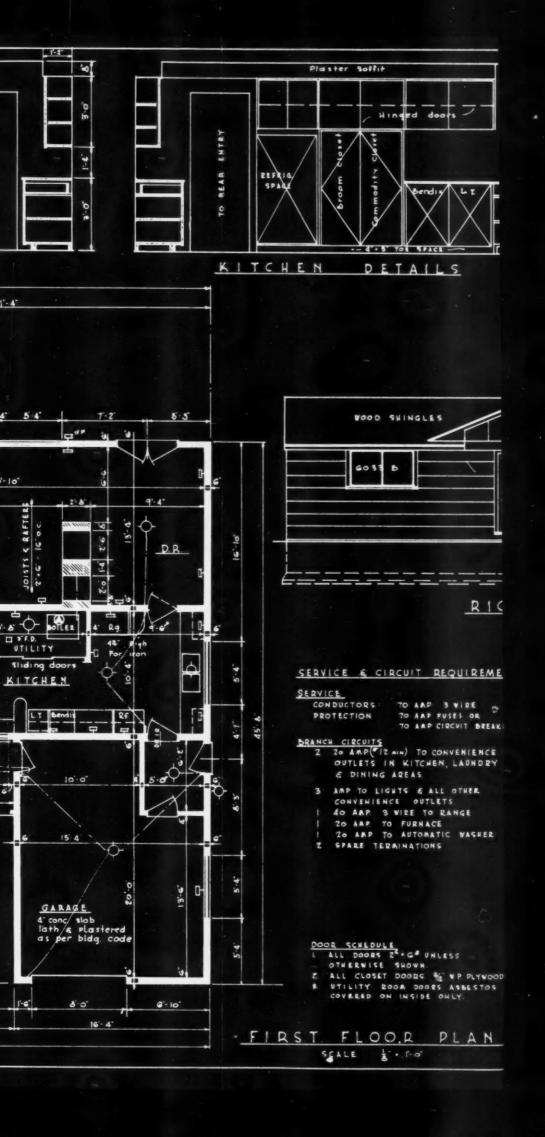
SCALE TOP PLAN -

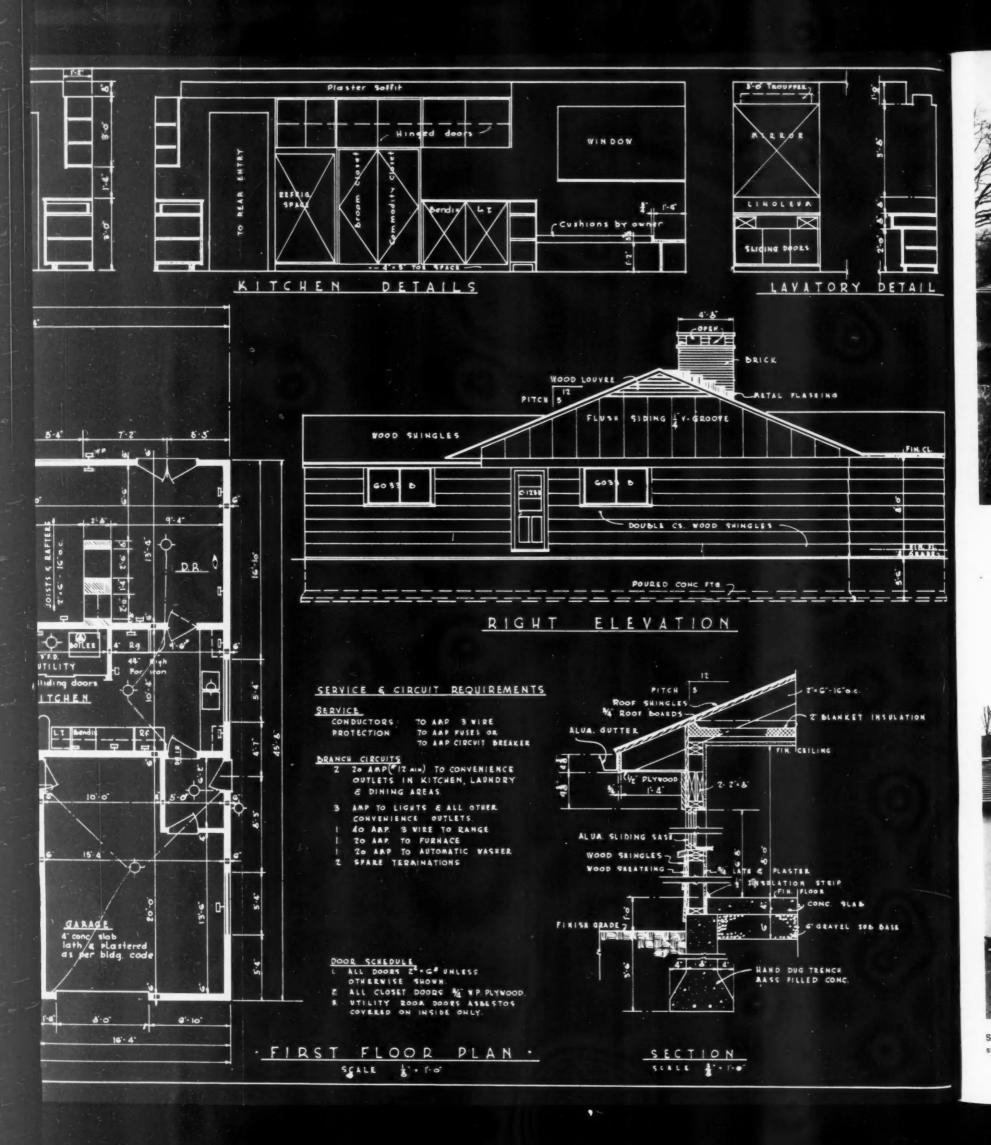




LEFT ELEVATION









WESTERN pine siding with battens gives vertical accent to this horizontal ranch-style, three-level design

#### Modern Design-Traditional Mellowness

Restrained contemporary styling with modern materials produces a house that will fit into either a very modern or traditional colonial development

AIL



SWING-UP garage door hardware of a new type designed for the California market supports the full span of this double door; operates easily with very little effort

ANY who believe that traditional and modern have no common ground will find this mistaken belief disproved in this three-level house of contemporary design. Modern in style, although not ultra-modern, it embodies the use of modern materials and equipment, cleverly employed. Yet it has the mellowness most commonly associated with traditional architecture.

Of ranch-type style with a western feeling, it was designed by eastern architects and nestles comfortably on a middle terrace on a Connecticut hilf-side. If the alleged New England conservatism has had any effect, it is only to induce sufficient restraint to avoid the extremes of modern design that could have made the house unsuited to its particular location.

Owned by R. W. Chamberlain, vice president in charge of sales for The Stanley Works at New Britain, Conn., it was designed by the architectural firm of Moore & Salsbury of West Hartford. It was built by Haddon N. Larson of Southington and decorated by Harrold de Groff of Berlin, Conn.

There are four large bedrooms and a fifth that can serve as a maid's room or nursery. The large living room and dining room can be separated by



LIVING ROOM combines traditional comfort and modern materials. The walls are a soft green, combed-grain, striated plywood

an accordion door, but usually open into each other. Kitchen and laundry are combined on the ground level—a modern preference.

The exterior of the house is of rough, white-pine boards with batten strips, applied vertically to give a vertical accent to the horizontal design. Roof is of red cedar shingles. The sidewalls are finished in a soft gray with contrasting trim. Supporting the structure is a solid, poured-concrete foundation.

The wrap-around windows at the corners of the two center-level bedrooms, and all other windows in the house, are made from gliding sash which runs easily in a track and can be instantly removed. The large windows in living room and dining room have fixed sash in the center with gliding windows at each side.

The exterior rear wall beneath the bedrooms, seen in one of the photos, and the fireplace in the living room are of native Bolton stone. The fireplace rises full width, clear to the ceiling with a simple wooden accent replacing the usual conventional mantel.

Walls of the living room and entrance hall are of comb-grained, striated plywood, finished in a soft bluegreen. At the right of the fireplace a concealed door leads to the utility room. This door is opened by a simple pressure.

Ceiling lighting in the living room

and in the dining room is recessed, leaving ceilings flush.

The kitchen is large, planned to be lived in. It has sufficient space for a dinette set, and the combination dishwasher-clotheswasher serves both kitchen and laundry. Kitchen ceiling is acoustical tile. A niche, opening in the wall between kitchen and living room, makes the telephone accessible from either without need for an extension.

The linen closet in the hall, and closets in the bathrooms and bedrooms have sliding doors.

The house is heated by forced hot water circulated through convectors. The heater unit also furnishes domestic hot water.



A TASTEFUL use of built-in cabinets beneath dining room windows is new touch



KITCHEN and laundry are combined



LARGE windows in living and dining rooms at rear look out on an excellent view. Photo shows three-level arrangement

BRANDED EQUIPMENT USED Russell & Irwin locks Stanley Blue Ribbon cabinet hardware Stanley ball-bearing oliveknuckle hinges on interior doors Stanley Swing-up Garage Door Hardware Knape & Voght sheaves and track on sliding closet doors Anderson Gliding windows Modernfold door GE forced, hot water heater Minneapolis-Honeywell controls Tuttle & Bailey convectors Standard-Sanitary fixtures Universal electric range Thor combination clothes-

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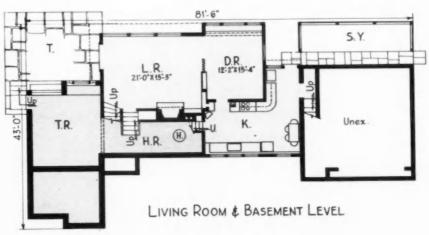
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THIS house is a three-level design. Entrance hall, lavatory, two bedrooms and bath, at left in upper plan, are half a story below remaining bedrooms and maid's room; half a story above the living room, dining room and kitchen shown in lower floor plan. At the left: The owner insists every door should have three hinges—all his have

#### Bathrooms Help Sell

AIR VIEW of Mott Park development shows general plan of site arrangement, landscaping and progress of building

Special attention to bathroom plans, finishes and equipment is proving especially profitable for this successful home builder

MODERN bathrooms, offering plumbing conveniences beyond the comprehension of yesterday's kings, are all-important items in the Gerholz Community Homes Development in Flint, Mich. And to merchandising-minded Robert P. Gerholz, nationally known builder, they are paying off.

Gleaming and efficient, the modern bathroom represents to this alert builder a focal point for fast selling. He is endowing it with pleasing appearance and equipping it with the most convenient accessories. Built-in sun lamps, heaters, electric shaver holders, glass stall showers, and glass block walls are standard equipment in bathrooms in the 250-house Mott Park development on the northwest side of Flint.

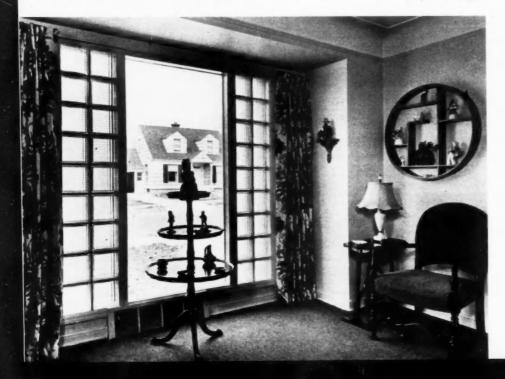
Measuring 5x7 feet, the bath units show careful planning, and offer their multitude of conveniences without crowding. The first impression they give is that of sparkling cleanliness and cheerful daylight. A panel of glass block over the tub introduces daylight, which is reflected from the tile walls and floor and the gleaming plumbing fixtures.

Translucent but not transparent, the glass block permits perfect privacy and enhances the fresh modern decor of the room. The block was also chosen because it is easily cleaned, is impervious to moisture, and minimizes cold downdrafts. The glass block panels have high insulation value principally because each block is hollow and contains a partial vacuum. A ventilator set in the panel provides adequate ventilation during hot weather.

All bathrooms in the Mott Park development are fitted with recessed towel cabinets, medicine cabinets with mirror doors, built-in electric heaters (with fan) that double as hair and hosiery dryers, recessed ceiling sun lamps, and electric shaver rests with retractable wires.

A tub with shower is standard equipment, but square tubs with seats or separate tub and shower stall will be installed if desired. This is accomplished by appropriating space from adjoining rooms. The flexible plan permits installation of an additional half or full bathroom on the upper floor at extra cost.

This flexibility is applied to the two basic house plans used in Mott Park and has endowed the development with distinctive individuality. The essential design is "Colonial Cottage," but 18 variations allow the purchaser to "have the kind of a house he wants." The traditional over-all monotony of large housing developments is eliminated. Gables, dormers and bay windows are the alterations most frequently requested,



THE large double-paned insulated glass window, flanked by panels of glass block, is a typical installation in many houses

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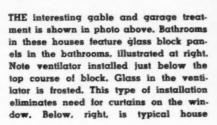
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according to Gerholz's experiences.

The basic designs, executed by Charles Noble, Detroit architect, have been developed within a framework of standardized building methods and materials. The general procedure of work embraces the experience of Gerholz's 25 years as builder and housing authority.

The houses are "engineered" to accommodate standard materials and equipment and are fabricated on the site rather than prefabricated or pre(Continued to page 138)







THESE floor plans are typical of those used throughout this 250-house development. Prices vary from \$10,450 to \$14,500

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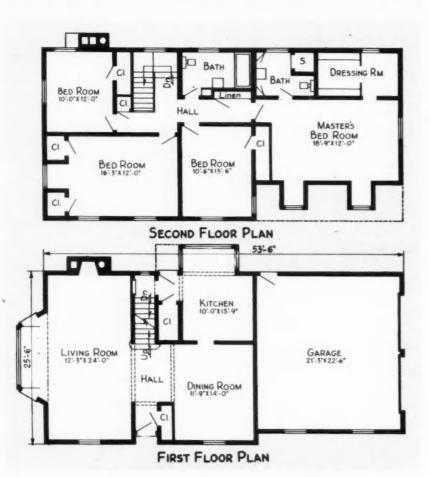
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# Built Complete



ONLY difference in exterior of Blietz' "Blanding's Dream House" and original Hollywood version is that position of front door and window are reversed

#### TIME SCHEDULE

#### Working Day

- 1 Excavating finished; started setting footing forms
- 2 Footing forms finished by noon; poured concrete in afternoon
- 3 Set drain tile
- 4 Set foundation wall forms
- 5 Poured concrete foundations
- 6 Set structural steel and concrete joist; set first floor forms
- 8 Placed electric conduit and sleeves for plumbing and heating in concrete first floor slab; poured first floor concrete slab
- 9 Started frame construction
- 14 Started plumbing
- 19 Completed frame construc-
- 21 Applied roofing
- 22 Side wall installation completed
- 23 Heating duct work started; dry wall application started
- 30 Heating duct work completed; installed finished wood floors. Started interior trimming; tile in bathrooms. Started landscaping
- 33 Finished dry wall construc-
- 35 Completed interior trimming; started interior decorating
- 45 Completed interior decorating and landscaping

#### in Forty-Five Working Days

Close coordination and supervision of labor and materials enables builder to beat own time schedule in completing the adaptation of the screen version of "Blanding's Dream House"

N 45 working days, an adaptation of "Blanding's Dream House" has been completed by Irving A. Blietz, Chicago builder.

The house, two miles from down-town Evanston, Ill., is centrally located in Williamsburg Village, a residential park of 102 homes now being developed by Blietz. The "Dream House," on a 145x72 foot lot, is priced at \$39,500.

Except for minor changes, it is a duplicate of the house built for the movie, "Mr. Blanding Builds His Dream House." Currently, 60 adaptations of the original Hollywood version of Blanding's Dream House have been completed in various cities.

Originally, Blietz planned to complete the house in 58 days. By close coordination and supervision of men and materials, he was able to cut 13 days from the schedule; to complete the house, furnish it, and to have all landscaping done. On the 46th day, the house was ready to open for visitors; even the grass was in the lawns.

Concrete footings for the house are 12 inches thick; 24 inches wide. Walls of the foundation are concrete. The first floor slab is reinforced concrete joist, carrying a 2½-inch concrete slab with reinforcing mash. A Bruce block, parquet floor is laid over the concrete floors.

Wood joist and Bruce flooring is installed on the second floor. Dry wall construction was used throughout. Two layers of 3/8-inch gypsum board was applied, the second layer laminated to the first. Roofing is 210 pound asphalt shingles. Gutters and downspouts are 26-gauge galvanized iron.

The kitchen is equipped with General Electric all-steel, white-enameled kitchen cabinets, a Disposall unit, G.E. dishwasher, range, and refrigerator. Kohler plumbing fixtures are used throughout the house, with vitreous china lavatories. Heating is provided by an oil-fired G.E. winter air conditioning unit. The house was furnished by Wilson-Jump furniture store, Chicago.



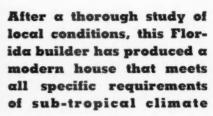
SPACIOUS living room provides ample space for various furniture arrangements





COMBINATION dining-reading room adds extra living space to house. Floor-Ever plastic floor covering is used in the kitchen. Cabinets and fixtures are G.E.







STREET view of house. Accent is on center portion that gives proper scale to front

THIS modern one-story house, located in West Palm Beach overlooking Lake Worth, is one of many similar homes designed and built by David S. Hammond of the same city. The builder calls it a California modern-type home.

The house has a number of excellent features that combine to make it extremely practical and interesting. In its design, consideration was given first to the prevailing tropical temperatures. This problem was overcome by increasing the ceiling height in the center area or living room. The added height gives better circulation as well as providing an attractive architectural feature for the center portion of the house. Further protection against the sun's rays is obtained by the deep entrance porch on one side and the screened and glazed loggia on the other side of the living room.

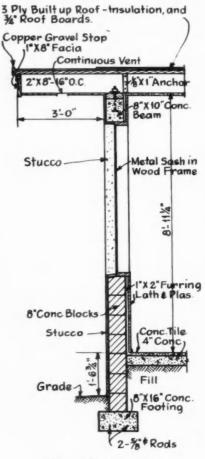
Entrance to the house is through double doors framed in glass blocks opening on a large living room. A fireplace, faced with black tile, has a mirror extending from mantel to ceiling. Large picture windows on both outside walls overlook the lake and patio. The outside wall of the adjoining loggia is enclosed with sliding French doors in addition to

screens. Exposed wood ceiling beams and roof boards provide a rustic appearance in this room.

The house contains two bedrooms and a maid's room, each with their own private bath finished in colored tile. The maid's bath is completely enclosed with 6x6 glass blocks. Metal doors and frames with frosted glass designs enclose each shower. These



PLAN arrangement is ideally suited to tropical climate. Two extended wings and concrete wall form a secluded patio. Typical exterior wall section shown at right



WALL SECTION

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#### for Cool, Comfortable Living



rooms are heated with 5000-watt electric heaters. The kitchen, which is generous in size, is arranged so that dining service can be extended into the loggia and patio.

The exterior walls of the house are constructed of 8-inch thick concrete blocks placed on reinforced concrete footings. The exterior surfaces of walls above grade are covered with cement stucco. The inside face of the walls is furred and plastered. Metal lath is used as a plaster base for all ceilings. Columns supporting the roof over the entrance porch are built up of concrete blocks. Steel reinforcing rods are inserted in the block voids and filled with concrete. Exterior surface of columns are finished with cement stucco.

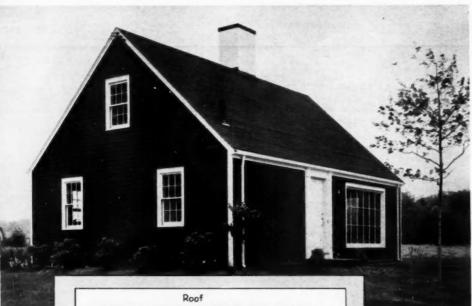
The house is basementless with a 6-inch thick concrete slab poured over asphalt roll roofing that is placed on top of the prepared ground surface of the entire floor area. Top of slab is covered with a coat of tar, with 2x2 cypress sleepers secured to concrete with mastic. Finished oak flooring is nailed to sleepers. This construction provides a moisture, termite and sag proof floor.

VIEW of patio above. Sliding doors enclosing loggia shown at right. Canopy to garage at left. Floor of colored quarry tile Left: View from loggia

into patio. Aluminum quide track is placed in the terrazza floor Below: Side and front view of modern house

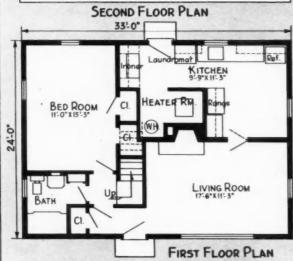


## Houses Demonstrate "Four Degrees" of Electrical Living



Quartet of builders carry out new home planning concept developed by the Westinghouse Electric Corp. to include an "electrical package" in new homes of varying price brackets. Public response has been enthusiastic

# BED ROOM 11'-0"x 15'-9" BED ROOM 11'-0"x 15'-9" Clos.



#### Thrift House

THE Thrift House was built by Joseph Balboni in a development of small homes. It is priced at \$12,000 with \$950 of this for the electrical package. There is a living room, kitchen, laundry, utility room, bath and one bedroom on the first floor with an expansion attic for another large bedroom in the future. It includes what is considered the minimum degree of electrical living. Has eight circuits and 50 electric outlets.

Electrically equipped with range, refrigerator, automatic washer, ironer, kitchen ventilator, water heater and fluorescent under-cabinet lighting in kitchen.



KITCHEN—laundry is adequately equipped in \$12,000 house

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**F**OUR degrees of electrical living, embodying four different "packages" of electrical installations and appliances, have been developed in the "Community Homes" project in Hartford, Conn., by Westinghouse Electric Corp.

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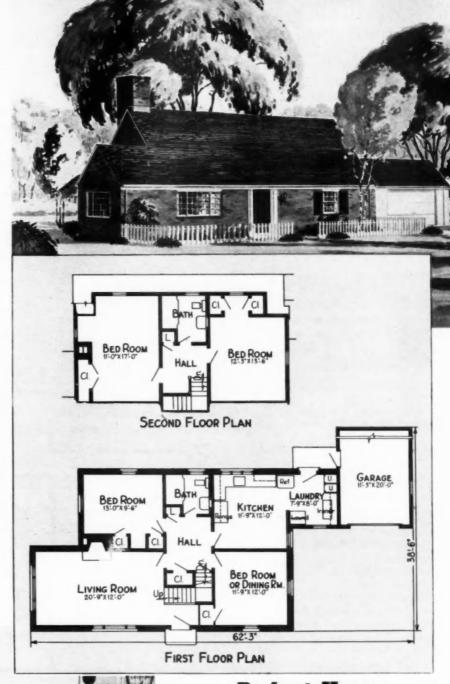
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ond The project results from a new concept in home planning, worked out by A. Carl Bredahl, manager of Westinghouse's Better Homes Bureau. It is designed to show that artistic design and scientific planning can be combined in new homes for any reasonable income bracket. All that is needed is cooperation between architect and builder, Bredahl avers.

In Hartford, four different homes have been built by as many builders, each differently designed by Architect Royal Barry Wills for different cost brackets. Carr & Cunningham of Cleveland served as coordinating architects. Designs all are traditional because this style of architecture is most accepted in Connecticut, and the purpose was to concentrate on supplying a suitable electric package for each house. The same principle can be applied in equipping any type of home for any section of the country. Lighting designs are by Myrtle Fahsbender, director of home lighting for Westinghouse.

The Hartford houses range in price from \$12,000 to \$25,000 and include electrical "packages" ranging from \$950 to \$2,064. The project was handled in this manner to emphasize that any one of the four degrees of electrical living can be adapted to any one of the houses, or to any other (Continued to page 102)



#### **Budget House**

EXEMPLIFYING the second degree of electrical living is the Budget House which includes a \$1,100 electrical package in the \$17,000 purchase price. Built by John S. Giuca and his three sons, it has a first floor area of 1,050 square feet with two bedrooms, one of which can be used for a dining room if desired. Unfinished attic has space for two future bedrooms and bath. There is a full basement.

Electrical equipment is served by 12 circuits and 87 outlets. Electric appliances include a range, refrigerator, automatic washer and clothes dryer, ironer, kitchen ventilator, 80 gallon water heater, bathroom heater, sterilamps in forced hot-air ducts to destroy bacteria in the air, fluorescent lighting under kitchen cabinets.





#### Ideal House

THE Ideal House, built by Edmund J. Naughton of Norwood Estates, hits the \$23,500 price bracket and includes \$1,342 in the electrical package. It has two bedrooms on the first floor and unfinished space for two more and a bath on the second. Storage facilities are well planned.

This house has more circuits than the previous, and 123 outlets—43 more than usually installed in a house of its size. It includes all the electrical equipment mentioned for the Budget House—much of it in a larger capacity—and has additional equipment, including a waste-disposal unit in kitchen sink. Special cove lighting and recessed indirect lighting in the dining room is decorative as well as useful.

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(Continued from page 101) house at the discretion of the architect, builder or purchaser. The four classifications have been designated, "Thrift," "Budget," "Ideal" and De Luxe."

The houses are not "model homes" in the usual sense of the word. Each is built as a part of a development by an operative builder. The response of the public is encouraging the builders to adapt some of the electrical ideas to other houses they are putting up in their developments.

The Hartford Electric Co., which is co-sponsor of the undertaking with Westinghouse, reports a tremendous interest in the packaged electric installations on the part of the public. One Hartford bank immediately advertised that it would include the package in mortgages that it wrote. Indications are that other banks will follow suit.







LEFT, kitchen and laundry wing; center, living room with lighted bay window; right, all fluorescents (except shower) in bathroom

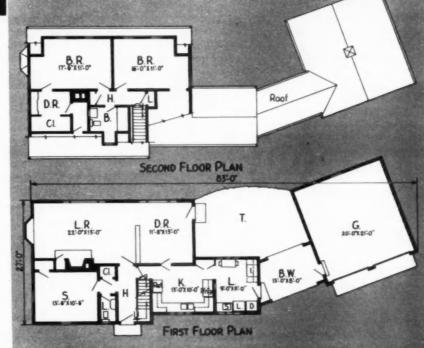
#### De Luxe House

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THE top-bracket De Luxe House was built by Amedee Houle and Delphis Gaumond of the firm, Ideal Builders. A \$2,064 electrical package is wrapped up in the \$25,500 price.

Including all the electrical appliances listed for the Ideal House in large capacity, it has additional electrically operated conveniences. There is a home freezer to supplement the 10 cubic-foot refrigerator-freezer. A precipitron fits into the air conditioning system to clean out dust and pollen from the forced-air ducts. Cornice lighting in the dining room, lighted bookshelves and wall niches add to the decor.

House has 163 outlets included in electrical package as well as 20 circuits.





DE LUXE kitchen sink includes garbage disposal unit. Right, note cornice lighting and concealed lighting in bookcase partition

## Behind the Scenes In a Power Tool Factory

Atomic age technology—skilled craftsmanship and modern machinery produce today's power tools—important items of builder's equipment aiding private industry in completing a million homes this year



OVERALL view of interior of Skilsaw, Inc., plant, Chicago, shows latest modern equipment and methods for producing power tools

THE role power tools will play in the attainment of one million completed homes this year cannot be minimized. Extensive use of power tools—saws, drills, sanders, grinders, and others—and the efficiency they add to production are evident on nearly every home construction job throughout the country. Their continued and more extensive use is assured. Behind the production of these tools is a story of perpetual research and skilled craftsmanship.

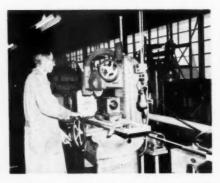
An inspection of a modern power tool factory reveals, first of all, a long line of drafting boards and busy technicians; this, before the factory proper is reached. Much transpires before the tools are made, and it is in this engineering department that power tools are born. New ideas, improvements, and changes go across the drawing boards every day.

Before the casting, cutting and assembly machines are reached, there is a line of machines the average power tool user would not think about — machines that make the machines that make the tools. The factory owner will call these machines "non-productive" — even though the factory paid \$41,000 for one of them.

"But," the factory owner will say,



IN engineering department, work on plans for new and improved tools is continually in progress. Users' criticism of tools often cause immediate improvement in the tools



THIS "non-productive" machine is making machinery to produce power tools. Advantages of such equipment are interchangeability and uniformity of the parts



MEN AND MACHINES handle volume power tool production. Here, 14 screw machines will run without supervision for 24 hours per day after being setup

"only by spending money for such equipment can we guarantee precision-built quality products."

These machines enable the manufacturer to have a complete interchangeability of productive machine parts in his factory. An exact duplicate of a casting finished on one of his machines 10 years ago, for instance, can be produced to-day.

On the expansive ground floor of the production end of the factory are automatic boring machines that do seven or eight cutting operations simultaneously, completing 60 castings an hour. Fourteen large automatic screw machines will run Amer

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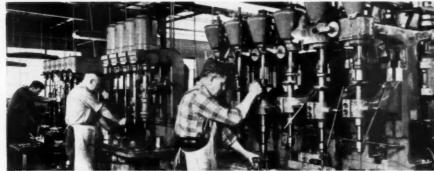
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THREE batteries of multiple-boring machines drill and tap castings held firmly in jigs during the operation. The jigs are made by the "non-productive" machines. Each unit in the battery is equipped with a different drill or tool so the operator moves from unit to unit rather than changing drills for each operation



INSPECTOR examines power tool part under Projection Comparator. Instrument measures linear degrees up to one tenth of a thousandth inch in comparing parts



METALS are tempered to right degree of hardness in heat treating department. Equipment is fully electric, automatic and assures uniformity of the precision parts



CASTINGS move along to another operation stage before going to the assembly line where women workers put the various parts together with speed and skill



COMPLETED power tools emerge from the assembly line where women, because of their dexterity in handling small parts, are employed to assemble the machines



ABRASIVE BELTS for sanders are cut in lengths on pneumatic-operated machine developed by factory. Belting is bought in mile lengths by power tool producers



COMPLETED power tools are packed in neat cardboard boxes, stored according to size, model and type, ready for national distribution to builders and other buyers



SERVICE branches for the repair of power tools are in every major city in the United States. Prompt and skilled attention is given each tool that requires repair

24 hours per day without supervision. It takes from two to eight hours to set up the screw machines. After that, they do the job alone.

In the center of the factory, housed in a separate small frame room with large glass windows, is a Projection Comparator. This is a valuable testing instrument that measures linear degrees up to one tenth of a thousandth inch; angular measurements up to one minute of a degree. A small gear from a power tool may be put into this machine, magnified 100 times and be accurately compared to the master gear it duplicates. This is one of

15 inspections each power tool averages before it leaves the plant.

Cleanliness of the plant is important to the morale of the personnel. The factory representative of this plant is proud of a recent statement by a manufacturer who exclaimed, "This factory is cleaner than many food processing plants I've seen."

After having passed the heat treating department, briefly watched the polishing department put satin finishes on raw castings, noticed the methodical precision of the assembly line workers, and watched power tools roll out on final inspection tables, the viewing of all stages is complete—from birth to full maturity of power tools.

Before leaving the factory, however, there is one other department—accounting—that cannot be overlooked in a complete tour. There is a continuous job going on here, too, and again it is done with atomic-age technology. Bookkeeping is done with modern automatic machinery—new error-proof punch card machines assure accuracy in the bookkeeping department that matches the accuracy of the power tools produced in this modern factory.

Photos and data courtesy of Skilsaw, Inc.

# STEPS TO TAKE NEW HOMES REMODELING FINANCING



## **Building Industry on West Coast**Plans Public Relations

Lumbermen will tell the industry story of progress to public and home builders

WEST COAST building industry leaders have recently started programs to give the industry a united voice—to make that voice aggressive, factual and effective.

The programs now under way, or about to start, are being held in Stockton, Modesto, Fresno, Salinas, Monterey and Healdsburg, Calif.; Seattle and Spokane, Wash.; Klamath Falls, Eugene, and McMinnville, Ore. The main point of the programs is to tell the story of the industry—to eliminate the buck-passing and blame-tossing which has been the pride and joy of public housing and federal control enthusiasts who operate on the effective principle of "divide and conquer."

Behind the program, too, is the conviction that members of the home building industry themselves need a little education as to their own worth in the general scheme of economic life. Too often, the industry believed, one segment accepted the charge of "excessive home costs" and defensively laid the blame on another. Industry felt it needed a program which would say, in the words of W. S. Brown, retail lumberman in Spokane, "to hell with trying to put their bonfire out, let's build a bigger one of our own."

Coordination of various local efforts into an overall home building industry program on the West Coast was conceived and expedited by W. C. Bell, managing director of Western Retail Lumbermens Association; Orrie Hamilton, secretary-manager, Southern California Retail Lumber Association, and Robert J. Wright, executive vice president, Lumber Merchants Association of Northern California. These three associations called in James R. Lunke & Associates, West Coast advertising and public relations counselors, to develop a professional handling of the program. Lunke's organization has had long experience in serving the advertising and public relation requirements for a number of building material manufacturers, and is well schooled on problems within the building industry.

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Bell, Hamilton, and Wright, with professional and technical help from Lunke, decided on the following physical program:

1. The local home building industry—builders, retail yards, lending institutions, architects, labor, material suppliers, equipment houses and utilities—would be called upon to consider and underwrite the program. Enlisting the participation of all segments of the industry would serve to get them together; spread the cost of a program which would help all meet a common problem.

2. Once the program is adopted, Lunke's agency will begin work: publicity releases, telling the various accomplishments, programs and developments of news value to the general public and a series of weekly ads telling the home building story will be released.

In addition to publicity and advertising, a 16-page booklet, "Steps to Take For New Homes, Remodeling, Financing," has been prepared for distribution to the public.

ADVERTISEMENTS for West Coast publicity program will be large enough to dominate a page; not so large as to be a financial strain. These, and booklets, will be the publicity

## Engineered House Construction PART II ELECTRIC SERVICE BEFORE YOU BUILD OR BUY



Photo courtesy Square D Company

WIRING the Modern Home

by John J. Riordan and Frank R. McShane
Registered Professional Engineers

The importance of electricity in modern living makes it imperative that homes be wired to adequately accommodate all possible needs

ROUBLE-free enjoyment and efficient usage of modern, electrical, home making appliances and modern home lighting cannot be obtained without a well-designed wiring system.

The wiring systems that were installed when the home use of electricity was in its infancy were designed for lighting only. Today lighting represents only a fraction of the electricity used in the home. Appliances and other devices use a large part of the electricity consumed. For a home to be truly modern, the wiring system must be designed to permit the convenient use of all electrical appliances. The ultimate electrical usage must be provided when the electrical system is first designed. It is a comparatively simple matter to install outlets, either switch or convenience, when the home is under construction, but it is often difficult to add outlets after the home has been completed. All electrical devices that may be used in the home over a period of years should be considered when the house is being designed. The basic requirement of a home electrical system is that it provide safe operation, ample capacity, and be convenient to use.

The electrical system of the home consists of these principle parts:

1. service extrance; 2. distribution centers; 3. feeders; branch circuits.

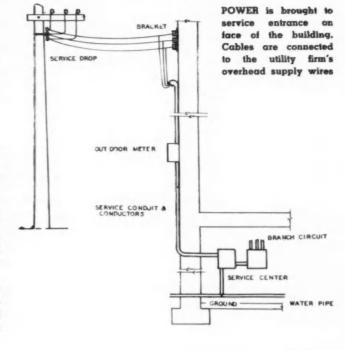
#### The Service Entrance

The service entrance is that part of the wiring system that extends from the utility company's service drop, street mains, or other source of supply, to the owner's service disconnect device. The disconnect device may be either a fused switch or a circuit breaker.

It most localities the electric utility company extends its lines to a bracket on the exterior of the building, and it is only necessary to extend the service entrance cable from a point near the bracket to the service disconnect.

The service entrance cables must be of sufficient size to carry the load connected to them. The size is determined by local codes. It should be remembered that codes are minimum requirements, and, in most cases, a well-designed wiring system will dictate the use of cables larger than specified by the governing code.

Before considering the capacity and the type of the service entrance, it might be well to consider the form of service that will be supplied to the home by the utility company. Most utilities supply single phase current at either 115 volts, two wire or 115/230 volts, three service (115 or 230 volts are nominal voltages, and it is meant to include voltages of 110 to 120 and 220 to 240). When possible, it is advisable to select a three wire service. A 115/230 volts, three wire service has many advantages over two wire, 115 volts service. By the addition of one wire to a two wire entrance, the capacity of the service entrance has been doubled. Many appliances that are used in the home will operate



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WHERE the home owner does not wish overhead supply lines to cross his property, the service entrance may be installed in a trench and extended to the utility company's line

OUT DOOR METER

SERVICE GABLES, IN TRENCH LEAD COVERED OR EQUAL

more efficiently on 230 volts. The automatic water heater, clothes drier, motors that are used on such items as an oil burner, workshop, the attic ventilating fan, will operate on one-half the amperes when connected to a 230-volt supply and with smaller voltage drop. This means there will be less flickering of the lights when these devices are used. The 115/230 volts service is a more versatile system since it provides the 115 volts for lighting purposes and the higher voltage

#### SERVICE ENTRANCE RECOMMENDATIONS

Floor Area			Size of Service Con-	Capacity of Con- ductor	Rating of Service Equipment in Amperes			
					Circuit	Fused Switch		
Square Feet		e Feet	ductor	Amperes	Breaker	Switch	Fuse	
Up	to	1000	6	55	50	60	50	
	**	1500	4	70	70	100	70	
**	80	3000	2	95	90	100	90	
	**	4000	1	110	100	100	100	

Above recommendations are based on three-wire service voltage with between 110/220 and 120/240 volts.

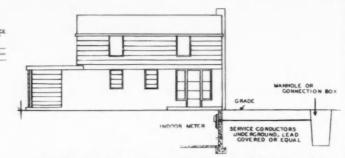
for major appliances. In some localities a three phase, four wire system of 120/208 volts is available. The added advantage in the use of this system is that the three phase system is available for such purposes as air-conditioning or other heavy power usages that might be used in the home.

The service entrance is the very heart of the electrical system. It is the entrance point of modern living. It must be designed so there will be ample capacity for any appliance that will be used in the home either now or in the foreseeable future. The size of the service entrance conductors is based on the electrical units found in a typical home, and is usually related to the size of the home in square feet. A home, having an area of less than a thousand square feet, should have three wire, service entrance conductors of No. 6 cable: for homes with an area up to 1,500 square feet, No. 4 cable; to 3,000 square feet, No. 2 cable; to 4,000 square feet, No. 1 cable.

The type of service entrance is dependent on the source of supply, the location of the supply lines, the owners wishes regarding overhead supply lines crossing his property, and local conditions. The service entrance conductors terminate in the building at the service breaker or fused service switch.

#### **Distribution Centers**

Every electrical conductor in the home must be protected against "short circuits" and harmful overload. The fuse or circuit breaker provides that protection for the conductor. The distribution center contains the fuses or circuit breakers which protect the various conductors to the outlets throughout the home.



WHEN the utility firm's supply lines are installed underground, the service entrance is extended underground from the manhole or connection box to the home or other structure

In the distribution center there should be sufficient circuits (that is, fuses or circuit breakers) to provide for the foreseeable electrical needs, and a number of spare positions (20 per cent of circuits being used). In number there should be one circuit for each five hundred square feet of usable floor area for lighting purposes, and one circuit for every 500 square feet of usable floor area for general purpose convenience outlets; two circuits, for kitchen and dining room appliances; one circuit for convenience outlets in the laundry; special circuits for such equipment as attic fan, dishwasher and disposal, home freezer and room heater. As an example, a home containing one thousand square feet of usable floor area should have the following circuits in the main distribution center: Two circuits for lighting and general purpose convenience outlets; two appliance circuits, for kitchen and dining room; one circuit to laundry; one circuit for attic fan; one circuit for dishwasher and waste disposal; one circuit for home

#### DISTRIBUTION CENTER, CIRCUIT RECOMMENDATIONS

	Size of Con- ductor	Capacity of Conductor in Amperes	Rating of Protective Device			
Circuit Purpose			Fuse	Cir- cuit Brkr.	REMARKS	
Lighting Outlets	#14 Min.	15 Min.	15	15	1 circuit for ea. 500 sq. ft. of floor area	
Convenience Outlets	#14 Min.	15 Min.	15	15	1 circuit for ea. 500 sq. ft. of floor area	
Kitchen & Dining Room Outlets	#12	20	20	20	50 per cent of kitch- en and dining room outlets to be con- nected to same cir- cuit	
Laundry	#12	20	20	20		
Range	#8	35	35	35	115/230 v. circuit	
	Min.		Min.	Min.		
Water Heater	#12 Min.	20 Min.	20 Min.	20 Min.	230 v. circuit	
Clothes Dryer	#10 Min.	25 Min.	25 Min.	25 Min.	115/230 v. circuit	
Heating	#14	15	15	15		
Unit	Min.	Min.	Min.	Min.		
Dishwasher & Waste Disposal	#14	15	15	15		
Home Freezer	#12	20	20	20	115 v. or 230 v.	
Work Shop	#12	20	20	20		

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freezer; one circuit for room heater; three circuits for miscellaneous equipment, basement, attic and garage; two spare circuits; total 14 circuits.

It is not a good practice to mix circuit breakers and fuses in the same electrical system. (That is, to install a service switch and fuses for a main disconnecting means, and then have circuit breakers in the distribution center or vice versa.) Provisions should be made in the main distribution center for an electric range, a water heater, and a clothes dryer. (See chart for size of the special purpose circuits.)

Generally in a residence the distribution center is located immediately adjacent to the service entrance. In large homes it may be advisable to put distribution centers in various locations throughout the home. Under this system the main distribution located adjacent to the service entrance would contain feeder protective devices, and feeders would be installed to distribution centers in various sections of the house.

#### Feeders

Feeders are the conductors extending from the service equipment (service disconnect and adjacent distribution center) to distribution centers that contain the branch circuit protective devices. The protective devices may be either circuit breakers or fuses. The feeder must be of sufficient capacity to carry the load it supplies, and it should have additional capacity that will permit the adding of future load without damage to the feeder. When circuit breakers are used in connection with feeders, it is often possible to use them as switches, thereby serving two purposes: one, protection for a smaller size conductor; and two, a control point for various appliances.

#### **Branch Circuits**

A branch circuit is that part of the wiring system extending beyond the final overcurrent device protecting the circuit. The overcurrent devices may be either fuses or circuit breakers but should be the same type as the service disconnect. The number of branch circuits required will vary with the size of the residence and on the number of appliances.

#### **Outlets and Switches**

The majority of electrical devices used in the home are "plug-in" devices. Therefore, outlets should be so placed that the homemaker can "plug-in" her electrical appliance wherever the desires to use it.

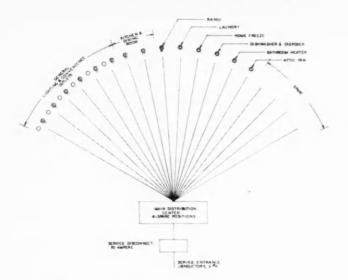
Each room of the home has require-

#### RECOMMENDED OUTLETS FOR RESIDENTIAL WIRING

Location	Ceiling Outlets		Out		Perimeter (	Convenience Outlets	Outlets	Remarks
ront Porch or Entrance	1	OF	2	2			1	Lighting outlets, type depends on architecture
			1	1		1	2	Wall outlet for illuminated house number. Weatherproof convenience out- let.
Other Intrances	1	or	1	ı			1	
Covered Porches	1						1	One ceiling outlet to be provided for each 100 square feet or major fraction.
Porches and Patios						1		Provide one convenience outlet along each 11 feet of wall or major fraction.
Living Room, Library, Reception Halls, Recreation Rooms, Bedrooms,	1		Not	'e (a)	Note (a)	Note (b)	2 (c)	(a) Provide outlets for wall brackets as desired and for valance or cove lighting when being used. (b) one convenience outlet for each 11 feet of wall unbroken by doorway and one outlet for each wall space three or more feet in length. Provide outlet in mantel shelf. (c) One or more convenience outlets to be controlled by switch. Provide additional control switches (3 or 4 ways) if important entrances are more than 10 feet from main entrance.
Stairway	2	01	,	2			2	One lighting outlet at head and one at foot of stairway with separate three-way control for each.
Halls	1	0	,	1		1	1	One lighting outlet for each 15 feet of hallway. Provide additional switches when doorways are more than 10 feet apart. One convenience outlet for each 11 feet of hallway.
Dining Room					Note (d)	Note (f)		(d) Provide outlets for Perimeter lighting (cove, valance, etc.) when specified. Multiple control for ceiling outlet when important entrances are 10 feet apart. (f) Convenience outlets for each 11 feet of wall space.
Breakfast Room, etc.	1					2	1	A minimum of two heavy duty (1000 W.) convenience outlets should be provided for toaster, grill, etc.
Kitchen	1					Note (g)	1	In addition to ceiling outlet provide light outlet for each work area.  (g) Provide convenience outlet for every four linear feet of work surface. Range and sink are not considered work surface. Locate all outlets with exception of the one provided for the refrigerator 44 inches above floor line. Provide special purpose outlets for clock, ventilating fan, range, etc.
Pentry	1						1	When cabinets are used, inside lighting of cabinets should be considered.
Bathroom	1			2		1	1	Ceiling outlet may be omitted when area is less than 60 square feet. Locate convenience out- let near mirror 4 feet above floor line.
Lavatory	1	4	or	2			1	
Closets	1		96	1			1	
Laundry	Hote (	(h)	No	ote (h	)	Note (i)	1 or	(h) One lighting outlet for each work area. (i) Convenience outlet for wash- er and one for ironer, additional outlets for other equipment such as ventilating fan, dryer.
Basement	Note	(i)				2	2(r)	(j) Lighting outlet for each 150 square feet, one outlet for each enclosed space; one at furnace and one at work bench. One convenience outlet at furnace, one at work bench. (r) Two three-way switches to control stairway lights. Wall or pull chain switches are to control all other ceiling outlets.
Attic	1						1	Pilot light on switch plate on floor below.
Garage	1		N	ote (	s)	1	3	(s) Exterior light to be con- trolled from garage and resi- dence when garage is detached from residence.

SCHEMATIC DIAGRAM OF WIRING WITH RECOMMENDED STANDARDS

SCHEMATIC DIAGRAM OF MINIMUM ACCEPTABLE WIRING IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE



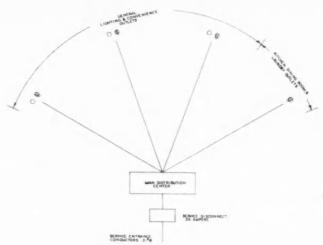
ments in convenience outlets. Obviously in some rooms of the home there is a greater need for electrical devices than in others, and in these rooms more convenience outlets should be placed. For example, the living room is the center of family activities, and convenience outlets should be placed in that room so furniture can be freely rearranged. If a convenience outlet is installed for each twelve feet of wall space, and a convenience outlet for each section of wall three feet or more long in such a manner that no point on the usable wall is more than six feet from a convenience outlet, a normal seven foot cord will reach a convenience outlet from any point in the room within four feet from the wall. With convenience outlets placed as suggested, a homemaker will be able to easily use any electrical appliances desired. (See chart for placement of convenience outlets in the various rooms of the home.) One point should be kept in mind in the connection of convenience outlets. In no room should all of the convenience outlets be connected to the same circuit. The reason for this is, that should there be a circuit failure "fuse blowing" or circuit breaker opening, the entire room will not be without electrical service

At least one lighting outlet should be installed in each room or accessible enclosed space of the house. This outlet may be a perimeter outlet for valance, cove, or strip lighting. It may be a ceiling outlet, or it may be a wall outlet for decorative purposes. (See chart for recommended outlets for residential wiring.)

In any home electrical system there should be a sufficient number of control points (switches) to conveniently turn on and off the various electrical devices. It should not be necessary to have to grope one's way across a room in the dark in order to find the point to turn on the lights. Switches should be so located that there is a path of light from room to room. This means that there should be a liberal use of three- and four-way switches. Switches for controlling lights and appliances are located on the lock side of the door. In many cases a switch controls the light which cannot be seen. For example, the lights for the basement are often controlled from the kitchen, and because it is not known whether the lights are on or off, these lights often are left on needlessly. Switches controlling lights that cannot be seen should be equipped with pilot lights.

#### **Telephones**

Provision should be made in the construction of the





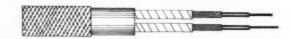
RIGID CONDUIT



METALLIC TUBING



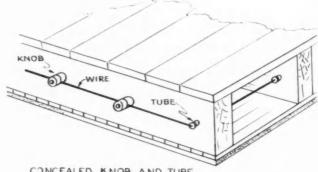
ARMORED CABLE



NON-METALLIC SHEATHED CABLE

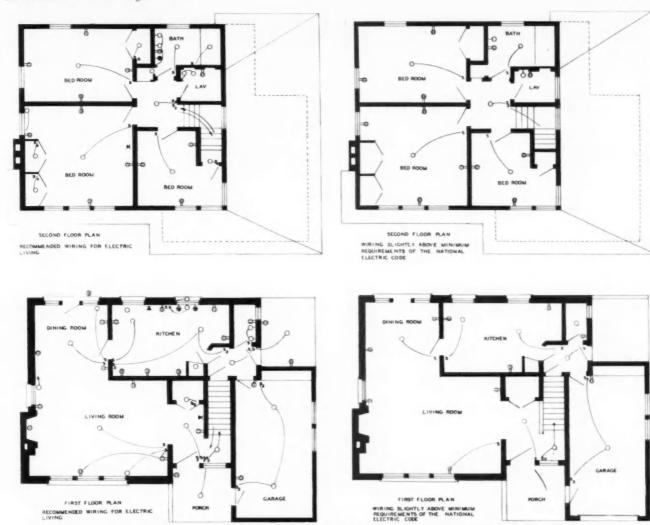


SERVICE ENTRANCE CABLE



CONCEALED KNOB AND TUBE

THE majority of homes being built at present are wired with one of the above types of electrical conducting materials. The kind of material used is usually governed by local codes



THE same Anicka Blueprint House used generally throughout this entire American Builder series on Engineered House Construction was selected to illustrate the difference between the two wiring systems shown above

home for telephone raceways and outlets. There should be, on each active floor at least one outlet served by a raceway extending to the unfinished portions of the basement or attic, depending on the point where telephone wires enter the building. The outlet on the first floor should be centrally located. The outlet on the second floor will probably be in the master bedroom. assembly. Conductors are rubber or thermoplastic insulated. All conductors are insulated except, in some types, the neutral is not insulated. This cable is often used for range circuits.

Concealed knob and tube wiring is usually confined to small homes. This type of wiring is not permitted in many communities.

#### Selecting Material

The kind of material to be used is governed by local codes and the type of residence being constructed. The majority of homes are wired with one of the following types of material and the corresponding fittings: rigid conduit, metallic tubing, armored cable, non-metallic sheathed cable, service entrance cable, concealed knob and tube.

Rigid conduct provides good protection for the conductors against mechanical injury. It is generally used in buildings of fireproof construction, but may be used in any type of building.

Electric metallic tubing is generally approved for the same uses as rigid conduit. The largest that may be used is two inch.

Armored cable is used for concealed wiring in old and new buildings. It may also be used for exposed work, when the exposed cable will not be objectionable.

Non-metallic sheathed cable consists of an assembly of two or more conductors in a non-metallic envelope. It is often used instead of knob and tube wiring.

Service entrance cable is a multiple conductor

This is the fourth and concluding article in the American Builder's Engineered House Construction series on electrical wiring. Beginning with the September issue, the first of a series will appear on the fundamentals of selecting good plumbing materials and their proper installation. This entire editorial program is designed to impart to builders basic knowledge on the selection and installation of the various equipment and service items that are now standard components of modern houses

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#### Lighting by Remote Control

New system now permits economical installation of multi-switch controls for lights at various points in house or other structure

NEW remote control wiring sys-A tem, developed by General Electric Co., makes possible a completely new and more flexible method of controlling lights and outlets in the home, office, factory or on the farm. Incorporating a new line of wiring materials, the system is safer than the ordinary wiring method, eliminates much large and expensive material and, at low cost, greatly extends the convenience of the wiring in all types of building.

The system permits the building occupant to switch on lights, outlets or small appliances from any number of points within the structure. It is possible to have any number of controls for certain lights or outlets where formerly the cost of installing more than one switch would have been prohibitive.

There are only five components in the new remote control system-one type of switch, one type of switch box, one type of relay, two types of wire and one type of transformer. It is easy to install either in new or old buildings, and differs from the conventional system in that the switches are connected to the outlets which they control by a new light-weight, Flamenol-insulated, 22-gauge wire carrying only 25 volts. Finger pressure on the 25-volt switches activates 25-volt relays mounted at the lights or outlets and the relays, in turn, control the lights or outlets. A small transformer installed somewhere in the building provides the low voltage.

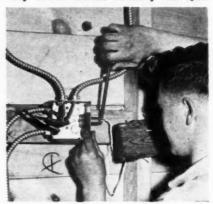
The switches used in the new system are very small, eliminate the use of wallplates and do not have to be mounted in large switch boxes. A gentle push on the switch turns the light on or off. Only one type of switch is installed, no matter how many control points are needed.

Because the system is so new a complete set of installation cost figures has not been assembled. T. D. Foster, sales manager of the G.E. Wiring Device and Accessory Equipment Divisions, states that where only one, two or more lights are controlled from a single switch, it is cheaper to install a conventional wiring system. "But generally speaking," he says, "a remote control system is cheaper when the same lights are controlled from two, three, four or more switches. Up to a certain point, the more lights that are operated by a remote control system, the greater the saving." Any cost comparison must also include the fact that many switching requirements formerly prohibitive in cost, can be taken care of at reasonable rates.

The five components of the new G.E. remote control system are now in production. Twenty-five of the Blanding Dream Houses being built in various sections of the country are being equipped with the new system. It is much safer than the ordinary method of wiring because all switches are connected to the harmless 25-volt wires, thus eliminating danger of shock, even in damp areas.



workman installing a 25-volt switch. It is a single-pole, double-throw momentary control switch, normally left open



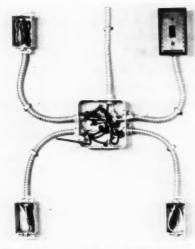
HERE one of the relays is being connected. They are small enough to be mounted from the inside of any standard outlet box



FLAMENOL-INSULATED wire of small size carrying 25 volts is installed in accepted manner without any further protection



THIS is type of small transformer which provides low voltage required to operate the new remote-control wiring system





THE two model wiring setups above illustrate how General Electric's new remote control wiring system, shown at right, eliminates the need for much of the large special equipment which is required in a conventional wiring system, shown in the setup at left

LIVING ROOM 12'-0"x 17'-6"

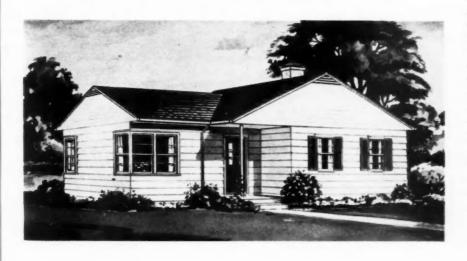


CLO. CLO.

BEDROOM \*2 9'-0"x 10'-0"

THIS is the August Weyerhaeuser Design No. 4131. There are 18,500 cubic feet in the high-roof plan and 16,600 in the lowroof house. Working drawings on this and other houses in this series may be obtained from 4-Square lumber dealers or from the Weyerhaeuser Sales Company offices in St. Paul, Minn,

37'-4"



### **More Space Less Money**

THE steady improvement in effec-tive use of available space, which has proved one of the most important developments in modern home building, is dramatically illustrated in this home design. The result is a good example of how comfortable living can be achieved in a small, economical

Here the builder is given a choice of completing the house in one of two ways-either with or without a second story. The basic plan shows a stairway to the second floor, a requirement when the large attic space is intended for use as living quarters. When the alternate roof plan is used, eliminating the roomy attic, the space occupied by the stairway in the basic plan can be used for other purposes. All the rooms are well lighted and ventilated with plenty of free wall space for a variety of furniture arrangements. The kitchen is large enough for a dinette table and chairs. Wide windows over the sink contribute much to the character of the room. Location of the bathroom off the front hall gives it semi-isolation yet makes it directly accessible to all rooms of the house.



NOTE careful arrangement of island and floor displays to provide clear view of interior from street

#### New Yard Marks Half Century of

Departmentalized displays, night lighting and numerous conveniences for customers increase traffic and sales in modern material store

NEWEST and most modern of the 24 Patten-Blinn lumber yards in Southern California is the one at Santa Monica. The yard is entirely new, having been built to replace an old one when the site it occupied was sold. Principal features of the yard are modern design, attractive use of new materials, and sales room appointments for the convenience of customers.

The sales room faces a welltraveled street, and is equipped with large display windows, and a lighting system to draw the attention of night traffic. The cut-out letters spelling the company name are mounted on top of the trough at the front. Made of seven plies of three-quarter inch mahogany, the letters are nearly five inches thick. Night lighting is from a source in the trough, and the letters, with deep shadow lines from their thickness, stand in bold relief. The inside is kept lighted during the early hours of the night by spotlights which are not visible from the street.

The retaining wall for the planting space in front of the building is Arizona flagstone. Flat and rounded panels of glass brick flank the entrance door to the display room.

Walls of the sales room are random width, brown Celotex plank, while the ceiling is ivory Celotex tile. Light is supplied by eight fixtures each containing four fluorescent tubes. The floor covering is Armstrong asphalt tile and all counter tops are Masonite Prestwood.

About half way across the floor and directly in front of the entrance door, there is a low counter with chairs in front of it, and knee space to permit customers to sit comfortably. All displays are departmentalized, and shelves, counters and display islands are kept full and clean.

Kenneth A. Mitchell, manager, says that one of the results of the displays is a great increase in the number of woman customers. Mitchell said that another notable change is that his builder customers now send home owners in to select many of the items to be used in their new homes. Almost without exception, Mitchell added, the new home owners become customers for garden tools, paint and many other items.

The display islands, designed in the company's millwork department, and built by the carpenters who worked on the buildings, are particularly at-

tractive. They are made of white pine, and finished with oak stain.

Another attractive display, and one that accounts for many small cash sales, is a "tool bar." Located in a corner, it is L-shaped. It consists of an L-shape counter-high cabinet with each leg about 6 feet long, and 18 inches deep. Bases are recessed for toe room, and tools are both in and on top of the cabinets. Tools are also hung on the walls from counter height to a plate rail about six and one-half feet above the floor. More tools are on the plate rail. Another "pay-off" display includes garden tools, floor sanders and small power tools. In addition to the usual paint and builders' hardware lines, sinks, cabinets and fireplace equipment are shown on the floor.

The manager's office has a Celotex tile board ceiling. Walls are 16-inch squares of striped African Mahogany, butted together, and with slightly rounded edges. The yard is bounded by three streets, and pick-up customers drive in one entrance and leave through an exit nearest the point where they received their merchandise. Platform roller trucks are used to carry merchandise to cars.



#### Service

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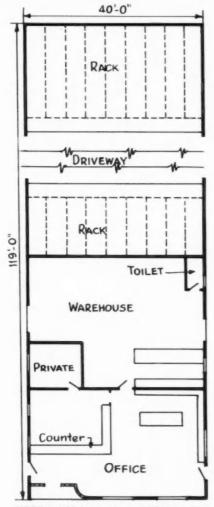
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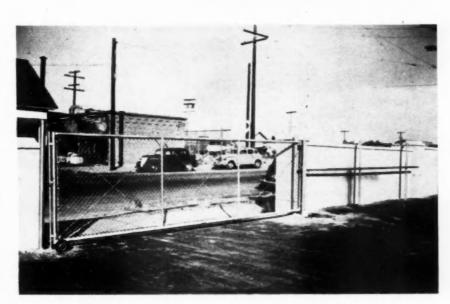
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YARD is 320 feet wide and 165 feet deep. Railroad spur enters yard, Illustration above shows office and warehouse only ABOVE: View of front of sales room. Note thick cut-out letters of sign on trough above entrance. Large display windows, modern lines and planting area help to draw new customers

RIGHT: Interior of manager's office. Note walls of striped African mach ogany in 16-inch squares. Office is conveniently located with respect to sales room, warehouse and yard



SIX 30-foot sliding-rolling gates provide access to yard. One end of gate rides on two small rubber-tired wheels. Gate slides on a metal channel. It operates easily, does not have to be fastened in place, and cannot close accidentally



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## Everywhere!

by R. E. Saberson

taking, they claim, can only be completed with government help. What they appear to overlook is the fact that the program already is proceeding at almost this rate and under circumstances which have made the job one of the most difficult ever undertaken by the home building industry that has made us the greatest homeowning nation in the world. The continued loosening up of certain hard-to-get materials will accelerate home construction far beyond the million-a-vear mark and quickly create the even greater danger of oversupply. Already we are headed hellbent in that direction in certain areas.

When we penned these words we were spending Sunday in one of the important cities of the country where the housing shortage a year ago had assumed rather alarming proportions. Assuredly there was a demand for homes at that time which appeared to be so great it could not be filled for years to come. Politicos seized the opportunity to make a great hullabaloo about it and promised prompt, permanent relief, none of which materialized in the way of government projects. Yet, during all this time, private enterprise was assiduously carrying on, and with such a degree of efficiency that within twelve months the following appeared in a Sunday paper about the current situ-

"The demand for houses is decreasing, real estate men reported Saturday.

"The number of inquiries by prospective purchasers is dropping, and many recently completed dwellings are standing empty for lack of buyers, the survey showed.

"Buyers can shop around more now that some of the demand for houses has been satisfied, and this has resulted in a definite resistance to prices, one real estate man said.

"Prices, however, have been slow to reflect the slackening of demand. Increasing construction costs are holding up prices on new construction, despite the lack of buyers.

"The result is that some large scale building contractors, facing the prospect of reducing prices to sell homes already completed, are cancelling plans for additional projects."

Frankly, I was not greatly surprised because I had already encountered a somewhat similar situation in many other cities but without a corresponding slowing up of new projects. As a matter of fact, in the majority of cases new construction was increasing rather than decreasing. During the same forenoon, in a Southern city, I talked with a builder who had erected twenty-five homes last fall and had sold them all before completion. This spring he had built twenty-five more and had not made a single sale, although several of the homes were ready for occupancy. At lunch I listened to the enthusiastic plans of another builder who was about to launch a 500-home project. In the city block after block of homes were then under construc-

In a Northern state the following week I spent a day in a county seat town (population 5,000) where approximately 200 homes had recently been completed or were under construction.

It had been a long jaunt from the extreme South to the Canadian border and it had been an equally lengthy trip from the Pacific Northwest to the tip of Long Island, but in every city, town and hamlet it was impossible to find a place where new homes were not being built in quantities which varied from a normal amount to a prodigious number.

In the same Sunday paper from which I quoted a report of the local housing situation, I read the President's blast about the failure of the Congress to "do anything about housing" and the dire results which would ensue. Later in the day in LIFE magazine I came across the following editorial about booming America.

"Quite aside from factory construction the U.S. was in the midst of its greatest housing boom—and this despite the caterwaulings about high prices. Two hundred and fifty-four thousand homes were started in the first four months of 1948, 90,000 of them in April alone. The total number of homes to be launched this year should run between 875,000 and a million. Last year 855,000 homes were started; 935,000 were completed. Altogether, a million Americans expect to buy houses this year."

Again let me point out that I am not claiming our housing shortage is over. I am merely calling attention to the fact that the demands of our frantic public housers have not yet been met by ways and means to conduct legal raids upon the thinning wallets of distressed taxpayers and that despite this fact private competitive enterprise is hitting it off at the rate of nearly a millions homes a year.

How many million will it take? Who knows! The city mentioned earlier in this article predicted a year ago that it would require at least five years, maybe more, to make a dent in its housing shortage. Less than a year later builders were biting their fingernails as they searched eagerly for buyers. Yet home construction still proceeds at far more than a normal rate.

Obviously it will take more than single family dwellings to solve the housing shortage completely, but an overage of such structures will create conditions which will accelerate the construction of the many rental units that are so sorely needed. Material costs will drop when supply begins to catch up with demand. Efficiency of labor will have to increase or wages come down, else there will be little to do. The grinding of the economic gods may be slow but the all-important point is they still grind.

I once knew an astute supplier of building materials who used to say in effect that "the *short* items of today will be the *long* items six months from now." His point is well taken. Shortages step up production and create overages which in turn cause reduction in prices.

We live in a country that is given to great peaks and valleys in its economic life-line. Already we have discovered that we now have as much too much of certain items as we once had too little not so long ago. It was ever thus and it will be that way again and again and again.

The theory that it would never be that way in houses seemed more or less certain two years ago but to-day it is very much less certain. And it will continue to be less and less the case until we again have too many. As to when that time will come, I'm not prepared to hazard a guess. I only know we are well on the way and that the momentum of production is now so great we shall not be able to stop when we have acquired enough homes to meet all demands. It will come to a halt only when we have too many.



HERE is a complete, modern laundry equipped with Hotpoint washer, dryer and ironer

#### Laundries

Fine variety of automatic equipment produced by manufacturers makes it practical to plan home laundry facilities scientifically. Neatness of units, in both appearance and operation, permit multiple use of modern laundry space

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GENERAL ELECTRIC produces a full line of laundry equipment



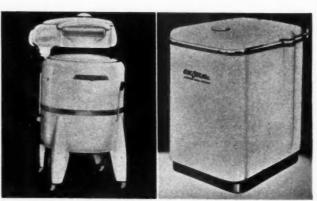
ANOTHER line of compact laundry equipment is by Frigidaire

ALTHOUGH there is some controversy concerning the advantage of the first floor laundry versus basement facilities, the fact remains that certain minimum automatic laundry accommodations are now generally expected in new houses. Just how extensive these facilities are depends on many factors, chiefly the price range of the house and the requirements of prospective occupants.

Scientific planning of home laundry rooms did not receive much attention prior to development of automatic laundry equipment by manufacturers. With all the fine new machines now on the market eliminating much of the former drudgery and messiness connected with home laundry work, it has been easy to include space on the first floor for installation of laundry facilities as part of the kitchen or service quarters of the home. Surveys conducted among women reveal that the majority prefer a first floor laundry or utility room as part of, or adjacent to, the kitchen, when automatic laundry equipment can be installed. These rooms can also double as space for sewing, canning or similar uses.

An amazingly efficient laundry can be installed in a small amount of space. Units should, of course, be arranged so that each task in the washday routine falls in logical work-saving sequence.

Basic unit is the automatic laundry. The dryer and ironer are needed to complete the setup, but they may be added later if provision is made for them. The new automatic laundry equipment eliminates the need for



AT LEFT is a Norge washer. Altofer Bros.' unit is at right

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#### Can Now Be Pleasant Living Areas



BLACKSTONE'S packaged laundry—washer, dryer, ironer—at left. The Apex ironer at right folds back into kitchen cabinet line

the double set tubs, but a single laundry tray adjacent to the working area is useful for odd laundering jobs.

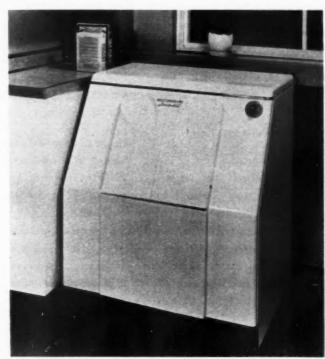
Base cabinets and work counter area are also desirable in the laundry. One section of base cabinet with the shelves removed provides a good area for storage of bulky items such as clothes baskets. One or more other base cabinets can be used for storage of other items which usually clutter up the average laundry.

Adequate wiring, plumbing and ventilation are essential. Although concrete floors are installed for many laundry rooms, women prefer some type of floor tile or linoleum, which are not only more comfortable but easier to keep clean.

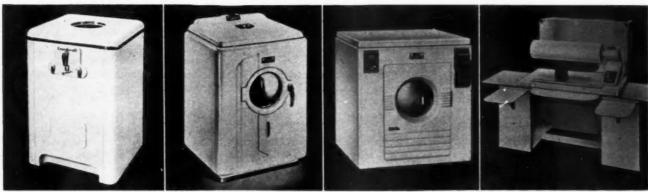
The modern laundry with its full complement of automatic equipment is a pleasant living area of many uses in today's home.

#### FHA REGULATIONS GOVERNING LAUNDRY EQUIPMENT

Electric laundering equipment, for sequence operation, permanently installed, may be included in FHA insured mortgages, if both mortgagor and mortgagee agree the units are real estate, except in these areas: Phoenix, Arix.; Little Rock, Ark.; Denver, Colo.; Washington, D.C.; Miami, Fla.; Boise, Idaho; Topeka, Kans.; Detroit, Mich.; Minneapolis, Minn.; Newark, N.J.; Greensboro, N.C.; Burlington, Vt.; Charleston, W. V.



THIS Westinghouse automatic washer has a single dial to control the length of washing time and temperature of the water



FOUR more laundry units. At left is machine made by F. L. Jacobs Co. Laundry, dryer and ironer are produced by Bendix

#### **Eye-Witness Report**

#### On the Re-Birth of Texas City, Texas



AIR VIEW of Texas City, Texas, taken at the time of the explosion that destroyed much of the city

On April 20, 1947, an explosion devastated much of Texas City, Texas. One-sixth of the population was killed or injured. Seventy-five per cent of the homes were damaged or destroyed. Few buildings escaped the power of the blast unscathed. On April 20, 1948, one year after the explosion, Sumner Rider of Rider and Keister, a New York publicity firm specializing in building accounts, visited Texas City. His report, which he has submitted to American Builder by request, follows

THE RE-BIRTH of Texas City is largely a story of the building industry. An industry which is frequently labeled "archaic," incompetent and inefficient, has performed miracles in twelve months, not only in re-building a wracked and ruined city, but also by greatly expanding industrial, commercial, and residential facilities in an attempt to keep pace with phenomenal growth in industry and in population.

Accomplishments in Texas City merely project into bold, dramatic relief the competence of the building industry.

General Manager R. W. Davis of the Chamber of Commerce speaking: "I was seated right here at this desk dictating to my secretary, Mrs. H. L. Anderson, the morning of the explosion. We knew there was a fire. We had heard the sirens. Then, we felt and heard a heavy, dull, earth-shaking explosion. Then, momentary quiet, during which we jumped from our chairs and started racing to the door to the street to find out what had happened. That moment of quiet saved us. We had scarcely rounded the partition forming one wall of my office, when it happened. Hell seemed to break loose on earth.

"The plate glass window facing the street, in front of which my secretary and I had been sitting, broke into a thousand-and-one pieces and blew into the office with the speed, power, and killing effect of as many bullets. We would have been cut into ribbons if we hadn't moved quickly, and our fate probably would have been little better except for the fortunate fact that the door to the street was standing ajar a few inches. This probably

kept the glass from exploding in our faces. As it was, the door was blown open and ripped from its hinges.

"Actually, we were very lucky in Texas City. Prevailing winds are from the southeast. The morning of the explosion, the wind shifted to the north, and stayed there for four days, blowing flames, embers, and smoke out to sea. Otherwise, the fire would have raced through the entire city, and with flammable roofing used so widely in this town, we would have had a major conflagration on top of the explosion. The unusual shift in the wind saved us. And, would you believe it, this morning, almost to the minute, just one year later, the wind veered into the north.

"But," Manager Davis continued, "you aren't interested in a personal narrative. Newspapers and maga"H TYPE Indust Busine Reside Public

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zines carried a more graphic, dramatic story of the Texas City disaster than I can give you. You've asked for a few facts about the damage.

"Here's the picture-

TYPE OF CONSTRUCTION	ESTIMATED DAMAGE
Industrial plants	\$42,000,000
Business establishments	6,000,000
Residences	
Public Schools	
Churches	150,000

#### Building Industry Does Good Job of Reconstructing City

"Did the building industry do a good job following the explosion? A marvelous job. The day after the explosion, while fires were still raging, we had a meeting with the lumber dealers, including some of the directors of the lumber dealers' association, with contractors, and building material manufacturers. Even while we were laying plans to get materials, men, and equipment needed to restore the city, truckloads of glass and asphalt roofing, and other materials so urgently needed, were rolling into Texas City.

"I don't know the exact number, but there were about 4,500 residential units in the city a year ago. Of this number, 3,382 were damaged or destroyed. Since that time, excluding minor work, 714 residences have been repaired and practically reconstructed, several hundred new homes have been built, and many more hundreds are under construction, and planned.

"But while the building industry has done, and is doing a good job, 53 per cent of the industrial workers in our plants can't find a place to live here in town, and are forced to commute from as far away as Houston and Galveston. That is not the fault of the building industry," said Manager Davis.

"Our population in 1940 was 5,748. In April 1947, at the time of the explosion, population had increased to 18,000. Today, there are almost 27,000 people living in Texas City, and fully another 10,000 want to live here, and need to live here, not tomorrow or the next day, but today.

"Just to give you another picture of the fast growth of Texas City, bank deposits in 1936 added up to \$800,000. Today, deposits are \$16,000,000.

"That's about all I can give you," Manager Davis concluded, "but why don't you drop down to the City Hall and talk to Osburn, our city engineer. He can give you more accurate construction figures than I can."

City Engineer R. R. Osburn speaking: "You want to know how much was spent on repairs and reconstruction following the explosion, how rapidly the work was done, and how much new construction there was in the past year?

"Come in and sit down at the desk where you can be comfortable and copy these figures."

These are the construction figures by months, copied from the files of City Engineer Osburn:

REPAIL	RS AND ADDITIONS
April '47	\$ 5,425
May	124,475
June	102,295
July	137,395
August	55,963
	70,475
October	22,390
November	29,620
December	20,040
January '48	31,606
	19,115
	28,240
No.	EW DWELLINGS  Dollar Value\$ 60,250
30	98,040
58	197,120
4.0	154,460
	191,745
	162,800
24	111,265
	963,500
	216,650
	124,300
	63,700
9.9	96,450

#### 471 New Dwellings Built in Year Following Explosion

"Don't these figures answer your question as to whether the building industry has done a good job? Look how manpower and materials were shoved in here right after the explosion, in April 1947. It just wouldn't have been possible to do the job with the materials in stock in local yards and with local labor.

"Look at the new dwelling figure," City Engineer Osburn continued. "New dwellings, 471 of them in 12 months, increased the total number in this city better than 10 per cent. And that following the explosion and in the face of all the other construction work that had to be done in this city.

"Much new building under construction now? More than 850 residential units and hundreds more soon will be started. Just today, another million dollars rental project was announced.

"Yes, the building industry has done a good job in Texas City. If you want to find out the immediate needs for materials right after the explosion, I suggest you talk to one of the dealers in town. Why don't you see Frank McDonald of the South Texas Lumber Co.?"

South Texas Lumber Co.'s Frank McDonald speaking: "We and all the other dealers in the town were in bad shape when the explosion occurred. Inventory on many

needed items was practically nil. We just hadn't been able to get materials required to take care of current demand. We had no glass. We waited weeks for a shipment, and when we got it, we didn't get much. Hardware was short. We had little or no roofing. Inventory of sash and doors was practically exhausted. I mention these particularly, as the immediate and pressing need was for these items for essential emergency repairs.

#### Critically-Needed Manpower And Materials Rushed to City

"Practically every window in the town was shattered. Almost every roof had to be repaired, and many roof areas facing the direction of the blast had to be replaced. Hardware on windows and doors was twisted out of shape. Lumber stocks were reasonably good, but little lumber was needed.

"Despite the shortages," Frank McDonald continued, "it was only a matter of hours until glass and asphalt roofing, particularly, commenced to flow into Texas City through our yards. Roll roofing for temporary repairs to keep out the weather until new shingles could be applied, and to block up broken windows and doors. Roofing felt to repair built-up roofs on industrial and residential buildings.

"Glass must have been shipped by the trainload, and glaziers moved in with the glass. Glass was fitted into openings, and days or weeks later, glaziers returned to putty them up.

#### Little Evidence of Explosion In Today's Texas City

"Ask anyone who lived in Texas City a year ago, what kind of job the building industry has done in this town, and I am certain of the answer you would get. Sure, people will beef because so many need homes, and that's to be expected. But basically, they know the shortage isn't the fault of the industry. They know what the industry can do and will do as rapidly as men and materials will permit."

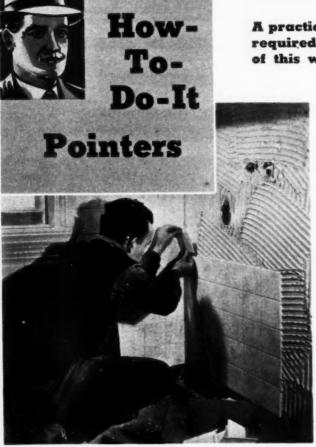
Today, one short year after the disaster, there is little evidence that Texas City was all but wrecked a year ago. One looks for damage, and finds it occasionally—a badly dented metal storage tank — a twisted bit of steel in an open field —a roof still only temporarily repaired. But Texas City today shows few external scars.

The re-birth of Texas City is just another saga in the history of the building industry—just another revealing record of its competence.

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#### How to Install Plastic Wall Tile

A practical explanation of the basic technique required to obtain satisfactory application of this wall covering over old or new walls





FOUR basic steps in application—smoothing the wall; leveling; plumbing, and applying

N general the only tools needed to install plastic wall tile are a medium tooth saw or plastic tile cutter for cutting; a small wood plane or file to smooth the cut edges; and a notched trowel or wide blade putty knife for spreading the adhesive. To plan the installation and keep it level and paral-lel a spirit level should be used. A pair of dividers and a yardstick, straightedge and pencil can be used in place of a chalk line if so desired.

It is important to plan every detail of the installation before work is started. This includes selecting all color combina-tions, types of feature strips or border de-

signs and height of the wainscoting.

If there are high or low spots in a plastered wall, locate them by moving a straightedge over the wall. Lower the high spots by chipping, sanding or cutting with a rasp. Low spots should be built up with batter wall is not a rasp. Low spots should be built up with patching plaster. If a plaster wall is not structurally solid, it is advisable to remove the old plaster and replace it with plaster board, nailed solidly. As a rule plastic tile can be installed on any structurally solid, smooth, clean, dry surface. Precautions must be taken to prevent moister to the support. ture or water from getting to the support-ing plaster or backing through the joints ing plaster or backing through the joints of tile, at corners, or where wainscot joins the edge of tub or shower base. It is imperative to seal the lower edge of the plaster where it joins the edge of a built-in tub to prevent water from entering in event the tub settles and leave an opening at the tub line after the tile is installed. A cove-shaped edging which provides a recess or channel for the tile to fit into should be installed on all sides of the tub that contact the tile wainscot. The space underneath this edging should be completely filled with adhesive.

Particular care should be taken to square and plumb each corner before the tile is

and plumb each corner before the tile is installed. Corners may be made with the tile themselves. Some manufacturers provide inside and outside corners but where these are not available and regular tile is

used, always cut the rounded edge from the tile fitted in the rear of an inside cor-ner. The exposed adjacent tile edge should be left as molded. Be sure to use a whole tile on one side of an outside corner, and butt this tile to the overlap on the other side. Metal edging may be used to make outside corners if it is of the correct type. It should provide a recess to receive the edge of the tile. Metal can also be used on inside corners.

Unless it is necessary for the wainscot

either to meet or to stay under a fixed line in the room, wainscot height should be a multiple of the size of one full tile. When muriple of the size of one full file. When choosing a height for a wainscot in a bathroom, do not establish a height which makes it necessary to use less than one half of a full tile where the tile meets the rim of the bath tub. If the tub is perfectly level, it is better if possible to set a wainscot height that will permit the use of full tiles above the tub. tiles above the tub.

A continuous level line should be drawn around the room at the top of the wainscot and also a short distance above floor level. and also a short distance above floor level. When tiling only the walls of a room, application should start at the bottom on either side of a door. Measure down from the level wainscot line a distance equal to the total height of the tiles planned for the wainscot, less one tile. Snap a chalk line around the room at this point. This line marks the bottom edge of the first row of tile to be installed. Where a cove base or other base is to be applied, the distance from the floor to the point where tiltance from the floor to the point where til-ing should begin is measured and a line scored at that point to establish the position of the first course of tile.

When measuring down from the level wainscot line, use a plumb line and draw wainscot line, use a plumb line and draw a vertical line, spacing the distance one full tile away from the door frame or corner. This will provide a true vertical line to follow when installing tile.

The bottom two rows of tile should be applied first, using the horizontal line as a guide, leaving the wall space bare one full

tile away from the baseboard or floor. After the two horizontal rows have been installed, apply two vertical rows along the vertical line, leaving the space bare one full tile away from the door frame or corner. Now that the two rows of tile have been estab-lished, horizontally and vertically, the balance of the wall surface may be tiled quick-ly and easily. Finally, go back to that un-covered vertical and horizontal wall space and install the last single row of tiles, cutting them as needed to fit. Where inter-

locking tile are used, tile are laid from left to right in, horizontal rows.

The adhesives used for setting plastic tile are usually slow setting, although no more should be applied than can be covered in one working period of an hore set two. in one working period of an hour or two.

It is spread with a notched trowel or comb
which leaves ridges of adhesive. Too much
adhesive will keep the tile from being

which leaves ridges of adhesive. Too much adhesive will keep the tile from being pressed firmly against the wall and allow it to "float" on the adhesive.

Except when interlocking tiles are used, installations may be made with the tiles butted close against each other or with a small separation between each tile, which fills with adhesive to form what is known as a grouted joint. When making a butted joint, be careful to place each tile in its exact final position before pressing it into the adhesive. First place one edge of the tile in correct position and then gently press the center to be sure no air space remains behind the tile. Do not slide it.

When installing tiles with grouted joints,

mains behind the tile. Do not slide it.

When installing tiles with grouted joints, place each tile about 1/16 of an inch from its final position and slide it into place. This will push a slight amount of adhesive This will push a slight amount of adhesive into the joint between the tile. To grout the joints, use a wood peg which has been shaped like a sharpened pencil to a round point approximately 3/32 of an inch in diameter. After the tile has set four to six hours, "wipe" the joints with this point, keeping it clean as work proceeds.

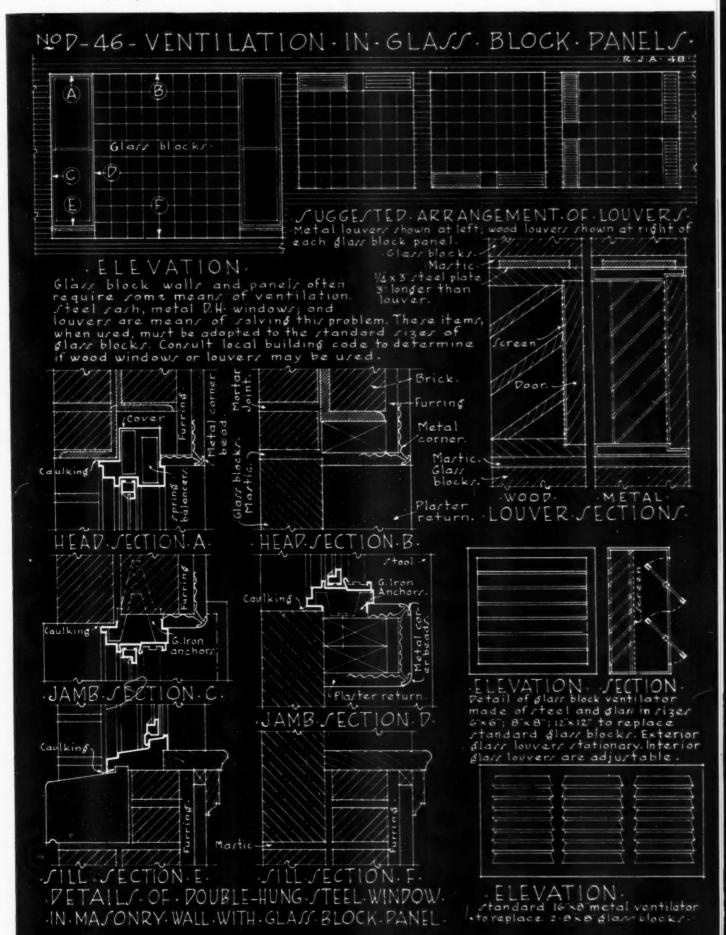
Do not try to clean joints as work proceeds. Excess adhesive may be removed by

Excess adhesive may be removed by using one of several cleaners on the market.

#### AMERICAN BUILDER'S BETTER DETAIL PLATE

American Builder, August 1948.

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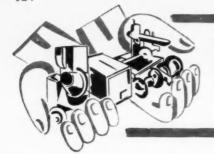
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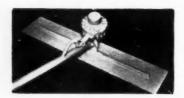
#### **NEW PRODUCTS**

#### Offered by Manufacturers

VIBRATING TROWEL

AB8818

Contractors and finishers will find this vibrating trowel a handy tool. Developed by C. B. Goodwin of 407 N. Meridian St., Portland, Ind., this



trowel can be built any size required, with either a long or short handle, for large or small surfaces. According to its designer, on test jobs it has been proved the trowel reduces the number of men needed on finishing jobs, as well as improves the actual finish by bringing the moisture to the surface on dry spots.

CABINET LATCH AB8825

A zinc-plated cabinet catch is offered by the Ideal Brass Works, Inc., Dept. G, 250 E. Fifth St., St. Paul 1, Minn. A solid brass screw is used as the strike. It's easily adjusted, and will permit the catch to operate smoothly without oiling. The floating fingers are propelled by individual lifetime springs so that the catch will engage easily and hold firm. The catch will allow twice the normal shrinking and swelling of doors.

STAINLESS STEEL SINKS AB880

A complete line of round-corner, welded, stainless steel sinks in 16 standard sizes is announced by S. Blickman, Inc., Weehawken, N.J. The line is designed to meet the industry's



demand for a heavy-duty stainless steel sink in the moderate price range. The units are available with one, two or three compartments. Each sink may be had with any one of four drainboard arrangements; with two drainboards; with drainboard on left; with drainboard on right or without drainboards.

SHOWER DOOR AE

The tub enclosure illustrated is fabricated from a new type of bright, hardened aluminum, named Permalume. Its bright, lustrous finish is diamond hard, strongly resistant to scratches, corrosion, and wear. Produced by the Shower Door Co. of America, 973 Peachtree Street NE, Atlanta, Ga., the tub enclosure pictured is known as the No. 172-B Double Rollaway Tub Enclosure. It features panels that open by rolling. This is accomplished by use of a



header bar and double ball bearing direct suspension. This method eliminates panel sway and sag customarily caused by single suspension methods.

RADIAL SAW CART AB8822

A trailer to carry their No. 1 radial saw from job to job is offered by J. D. Wallace & Co., 136 S. California Ave., Chicago 12, Ill. Fitted with a new-style spring suspension, the trailer rides smoothly. A removable caster wheel at the trailer hitch permits the Saw Cart to be detached from the automobile and moved around the job site. Made with a sheet aluminum top that hinges back for operation, the body of the trailer includes a panel and mounting studs to hold saw blades, dado heads, shaping heads and other accessories; a reel for holding an extension cord; and a storage space under the machine for table extensions, jigs, and fixtures. Quick-acting jacks built



into the sides are used to bring the table of the saw up to working height and to level it off despite irregularities of ground level. Table extensions bolt to sides of machine for holding long stock while sawing.

WATER PUMP SYSTEMS AB8815

A complete line of domestic water pump systems, designed for both shallow and deep wells is on the market. Operated on the jet principle, the pumps are suited to farm homes, summer cottages, suburban homes, clubs, resorts and hotels where city water mains are not available. They also may be used by small factories, dairies, laundries, and amusement parks. Three types of pumps are inlaundries, and amusement cluded in the line: the vertical deep well pump; the horizontal deep well pump, and the 1 H.P. model. Both deep well pumps are made with single and dual pipe units. In all types the motor is a standard jet pump motor. The line is being marketed by Ingersol-Rand, 11 Broadway, New York, N. Y.

SHALLOW WELL PUMP

A practical domestic pump which has no parts underground to clog and

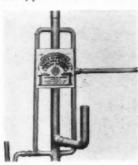


rust, and weighs only 45 pounds is on the market. Easy to install, it can be placed wherever it is most desirable. The pump will deliver positive pressure, without pulsation, out in the pasture and feed lots, as easily as in the laundry, bath, or kitchen of farm home or country estate. Completely enclosed in a cast-aluminum housing, the motor and pump form a single, lightweight, compact unit. There are no dangerous exposed moving parts. The pump is self-lubricating and self-priming. Robbins & Myers, Inc., Pump Division, Springfield, Ohio, are the makers.

#### WELDED VENT STACK

AB8803

An all-welded vent stack fabricated in the shop and delivered to the building site ready to install is receiving popular approval from builders, ar-



chitects, and plumbing inspectors. Made up of steel pipe and tube-turn welding fittings, the unit reduces the installation time normally alloted to such work. Another saving is effected in wall thickness-this stack saves up to 2 inches in wall thickness without sacrificing the I.D. of the pipe. The unit was developed by the Engineering Service Division of Tube Turns, Inc., Louisville, Ky. As a guide to plumbing and heating contractors in fabricating the unit in accordance with the codes in their particular localities, a blueprint of the all-welded stack will be furnished by the manufacturer upon request.

#### CHIME-CLOCK

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AB8829

A kitchen red model has been added to their line of combination chimeclocks by the Rittenhouse Co., Honeoye Falls, New York. The latest



model combines a self-starting electric clock and melodious door chime that sounds two notes for the front door and one note for the rear. The chime operates from a standard doorbell connection, and the clock is provided with a plug-in cord for 110-volt A.C. operation.

#### CONSOLE HEATER

**AB8830** 

An oil-burning space heater designed by an outstanding industrial designer is announced by The Coleman Co., Inc., Wichita I, Kans, The

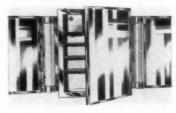


streamlined cabinet is welded into single piece of heavy gauge steel. It stands only 34½ inches high, is 37¾ inches wide, and has an overall depth of 25 inches. Heat is delivered by radiation, circulation, and, when the heater is equipped with a power blower, by direct air movement at floor level. The unit is produced in two finishes: a biege with coppertone grille, and a brown. Large louver sections in the front, back and floor of the heater aid the flow of air through the casing. Inner liners are aluminum-finished to help keep the outer casing cool while providing a better heat reflecting surface.

#### BATHROOM CABINET

AB8806

Two adjustable wing mirrors giving the user an "all-angle profile vision" are the outstanding features of the Park Wing bathroom cabi-



net. Also important is the controlled fluorescent lighting, the reflectors of which are easily opened for intense spot illumination for shaving or make-up. A Safe-T chest that can only be opened by pressing a button on top of the cabinet, for the storage of drugs; adjustable glass shelves; razor blade disposal; adjustable toothbrush holder are other features. Produced by the Faries Manufacturing Co., Decatur, Ill., the Park Wing is made of bonderized steel with chrome trim and plate glass mirrors.

#### CARBIDE HAMMER BIT

AB8814



A new carbide hammer bit for drilling granite is announced by the New England Carbide Tool Co., 60 Brookline St., Cambridge 39, Mass. Tradenamed Blue Cyclone, the unit is tipped with carbide, has two deep flutes and a tapered shank. The tapered shank is designed to fit the Rawl chuck because Rawl chucks fit any electric or pneumatic hammer. This drill is designed to cut accurate holes in granite, pebble concrete, hard brick and other hard masonry materials. The manufacturer also produces the Red Cyclone, a rotary carbide-tipped bit.

#### POWER SAW MOUNT

AB8808

A mount for portable power saws is manufactured by Durham Bros., P. O. Box 620, Oakland, Calif. Marketed under the trademark "Jiffix", the



mount helps save time and promote accuracy in making repetitive cuts of dimension lumber, cutting rafters, trimming ends square and mitering trim. It enables the owner of a power saw to make every cut needed for a complete framing job and all inside finishing, including cabinets. saw is attached to the mount by boring two holes in the saw's base plate and bolting. The mount is fastened to shop bench or field work bench by bolts and wing-nuts, which are provided. A guide strip is then nailed to the bench and the saw squared up with the guide by loosening one bolt and rotating.

#### **ALUMINUM AWNING**

AB8810

New entry into the aluminum awning field is the Thabet Manufactur-



ing Co., 626 Huron St., Toledo 4, Ohio. They are currently marketing an ultra-modern all aluminum canopy under the trade name of Lumi-Shade. Designed for houses, apartments, store fronts, office building and factories, Lumi-Shade is made of durable aluminum and is fully tested for stress and strain. The awning comes unpainted, or in

#### CIRCULATOR FIREPLACE AB8828

Several improvements in design have been incorporated into the circullator type fireplace made by The Majestic Co., Huntington, Ind. A bead across the front of the unit above



the opening not only reinforces the front but serves as a gripper on the insulation which is placed around the metal unit before the brick is laid. With this bead, the insulation will not drop or settle. Another improvement is the new location of the warm air openings. This facilitates the brick mason's work and is proving a very popular improvement. An ingenious patented poker control devised to assure a damper of outstanding efficiency is still another refinement. The Majestic fireplace is adaptable to any type of mantel. Delivered ready to install, the masonry is simply built around it.

#### BLOCK LIFTING TOOL ABSE

To reduce the hard work in handling building blocks, The Block-Lift Co., Mt. Vernon, Ohio, offer their new tool named Block-Lift. In use, the tool acts as a handle. Its open jaw



grips either end web firmly, to lift, place and true up the block. Its excellent leverage makes handling the heavy blocks an easy one-hand operation that saves hands, gloves and back.

#### EXCAVATING MACHINE AB8817

A speedy, lightweight machine designed for excavating and material handling jobs that do not require the



larger size excavators has been added to the 3/8-cubic yard excavator and material handling equipment by the Osgood Company, Marion, Ohio. Identified as Type 5, Model 5C, it is available as a shovel, dragline, clamshell, crane, and hoe. All main operating machinery is positioned on a welded deck, proportioned properly to take all strains and stresses set up in operation. It may be powered with either gasoline or Diesel engine. Twin disc clutches activate the swing, travel, and hoisting motions. All operating controls are grouped around and in front of the operator. The cab is designed to give the operator full view of his work, and complete protection from the weather.

#### RECESSED MEDICINE CABINET AB8802

A newly-designed, recessed medicine cabinet is offered by the Walters Manufacturing Co., Oakmont,



Pa. Made of 22 gauge, one-piece welded steel construction, the cabinet comes in two sizes, one with mirror 16 inches by 22 inches, and the other with mirror 16 inches by 26 inches. Each size is 14 inches wide. The cabinet has a rust-resistant, high-baked, white enamel finish; the mirror is of A-quality crystal, mounted in polished stainless steel frame. The shelves are safe-edge glass; the door has a bullet catch.

TILE GROUTING PRODUCT ABS811
A new product formulated especially to seal joints of metal, plastic, and ceramic wall tile has been developed by the Industrial Division, Arm-



strong Cork Co., Lancaster, Pa. Trade-named Ceramite, the product is applied directly to the tile joints. It is water resistant, non-porous, and easily cleaned by washing with water. Since Ceramite "sets up" through chemical reaction rather than evaporation, no noticeable shrinkage in volume takes place during or after setting. It will not crack nor draw away from the edges of the tile through shrinkage. Ceramite is pure white and sets hard in a few hours. It adheres tightly in joints of tiles that have a baked enamel finish, as well as in the joints of plastic or ceramic tiles.

#### WALL HEATER

AB8823

A built-in, bathroom wall heater that is themostatically controlled is on the market. The thermostat has a range of from 56 degrees to 84 degrees Fahrenheit and is equipped with a thermometer. The metal case of the (Continued to page 142)

#### CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

American Builder, 105 West Adams Street, Chicago 3, Illinois

NAME.....ADDRESS.....

CITY.....STATE.....

AB8801	AB8807	AB8813	AB8819	AB8825
AB8802	AB8808	AB8814	AB8820	AB8826
AB8803	AB8809	AB8815	AB8821	AB8827
AB8804	AB8810	AB8816	AB8822	AB8828
AB8805	AB8811	AB8817	AB8823	AB8829
AB8806	AB8812	AB8818	AB8824	AB8830

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder.

Ro



More than Beauty
Reeps Ro-Way Up Front!

Along with their good looks, every Ro-Way Door is backed up by expert engineering, fine materials

Check how easily they open and close. That's the result of carefully designed friction-reducing track, ball-bearing track rollers and power-metered springs.

Check the lumber used in Ro-Way Doors. Firstclass, kiln-dried stock, assembled by skilled craftsmen in Ro-Way's own plant.

Note, too, that Ro-Way hardware is extra rugged built for more years of trouble-free service ... Parkerized and painted after fabrication for extra protection against rust.

Add it all up and you'll see why it's more than beauty that keeps Ro-Way Doors up front.

Dependable Ro-Way sales and installation service is available nationwide. Consult your classified telephone directory, or write for distributor's name. See our catalog in Sweet's.

ROWE MANUFACTURING COMPANY 739 Holton Street . Galesburg, Illinois, U. S. A.

There's a Rollay for every Doorway!

AMAZING NEW RO-WAY DOOR REQUIRES ONLY 21/2 INCHES OF HEADROOM! Ro-Way's latest achievement-the New Model 21, 4-section overhead type door. Now in production. Write for details.



Ro - Way Doors are also available for commercial and industrial buildings.

3



#### NEWS OF NRLDA AND STATE AND REGIONAL ASSOCIATIONS

### NRLDA to Grant Awards to Dealers For Outstanding Public Relations

RETAIL lumber dealers who demonstrate outstanding accomplishments in public relations will be recognized annually under a new program being inaugurated by the National Retail Lumber Dealers Association. Seven awards to yards in different classifications will be made. Engraved plaques will be presented to the firms selected at the annual meeting. First awards will be made at the NRLDA meeting in Florida in November this year.

Purpose of the awards is to focus attention of the industry and the public on the outstanding services performed by lumber and building material dealers in their public relations work. The program will also serve to highlight the type of work being done by those selected for awards so that dealers everywhere may study the successful methods employed and possibly adapt all or parts of such operations to their own community public relations work.

The seven classes of entries with one plaque in each class, are set up as follows:

Class No. 1—Yards in towns with populations of under 1,000. Class No. 2—Yards in towns with populations of 1,000 to 5,000. Class No. 3—Yards in towns with populations of 5,000, to 50,000.

Class No. 4—Yards in towns with populations of 50,000 to 100,000. Class No. 5—Yards in towns

Class No. 6—Dealer group public relations programs.

with populations over 100,000.

Class No. 7—For outstanding promotional work with the Industry Engineered Homes Program.

The dealer group public relations program was set up as eligible for an award because in a number of cases several yards have joined in a group public relations undertaking, either as retailers exclusively, or as part of an overall industry group including contractors, financial interests and other groups.

All of the entries in the first six classes which include the construc-

tion of an IE Home as part of the program will be automatically entered and judged also for the IE Homes Award, whether or not such an entry has already received an award in one of the first six classifications.

Entries may be made by dealers themselves or through their state or regional association offices. A dealer making his entry direct may send the letter of transmittal, photographs, documents, an account of the problem encountered, the solution used and proof of effectiveness directly to the director of public relations of the National Retail Lumber Dealers Association, 18th and M Streets, N.W., Washington, D.C. The staffs of federated member associations of the NRLDA may submit entries of vards in their own areas which they believe from experience are worthy of consideration for the awards

All entries must be in the hands of NRLDA officials in Washington not later than October 15 to be eligible for consideration in this year's awards.

Dealers who have been conducting public relations work should not hesitate to suggest to NRLDA or their federated association offices the fact that they have done a job which could be considered for an award.

Dealers who have been conductpublic relations programs acquaint the general public with the true facts about their businesses. They create favorable opinion and ready acceptance of their organizations and industry as a whole. This is done by advertising, public speaking or programs of any type designed to inform or present an idea to the general public or that segment of the public which must be informed for the problem to be solved. The important point in the whole undertaking is whether the messages and ideas reached a satisfactory portion of the uninformed audience.

#### The President's Column



By N. P. MASON, President NRLDA

The avalanche of mail to the editor of American Builder praising this new column—well perhaps it was only a few letters—has given him courage to continue this venture for a while at least, so here is edition number two.

The National Political Conventions are now history. The presidential campaign is now under way in real earnest. At this very moment and in the months that lie ahead, we in the construction industry have an opportunity which we must not overlook. A good deal of misinformation about housing has been given to the public of America by groups who were trying to sell federal public housing to it. Now it is up to all of us in this housing industry to see to it that voters and politicians alike are given the truth, told of the records we have been making, told of the research we have been conducting, told of our new machinery and our new products, and told of the real values we are giving.

National Home Week beginning September 5th offers us a worthwhile way to get started in this campaign. It offers the opportunity for a gathering of all the factors of this industry, a place where builders, bankers, labor and lumber dealers may join with other civic-minded groups to sponsor National Home Week in their communities and at the same time get the real truth of what this industry is doing over to the home folk.

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**There is nothing** more attention compelling than a new home being built—nothing so basic as the desire for home ownership in the hearts of Americans. This first National Home Week comes

(Continued from page 130)

## NEW COPPER FLASHING SYSTEM PRICED FOR LOW-COST HOUSES



#### Nationally Advertised in The Saturday Evening Post

Now—with the thrifty Revere Home Flashing System—you can give low-cost houses the lasting protection of durable, non-rusting copper flashing. It adds an important sales point to the house; it shows that the builder uses quality material; and it assures complete satisfaction for the owner.

The Revere Home Flashing System is based on a special gauge, special temper and special size of sheet copper developed exclusively for flashing low-cost houses. It is packaged, complete, ready for you to install.

Each package contains: (1) 10 sheets of special Revere Copper pre-cut to 18" x 48", the right size for easy handling and economical installation; (2) enough hardware bronze nails to do the job right; (3) a 16-page instruction book that clearly shows—in words and pictures—the fastest and surest way to install flashing around doors, windows, chimneys, and adjacent wall and roof joints.

Two thrifty packages of Revere Home Flashing are enough to seal all the vital joints on the average small house. And it is so low in cost . . . so economical to install, that you'll want to start using Revere Home Flashing right away!

#### AT YOUR BUILDING SUPPLY DEALER

Your building supply dealer has Revere Home Flashing in stock... or can get it for you promptly. Ask him today, and start now to give your customers—and yourself—the protective advantages of the Revere Home Flashing System.

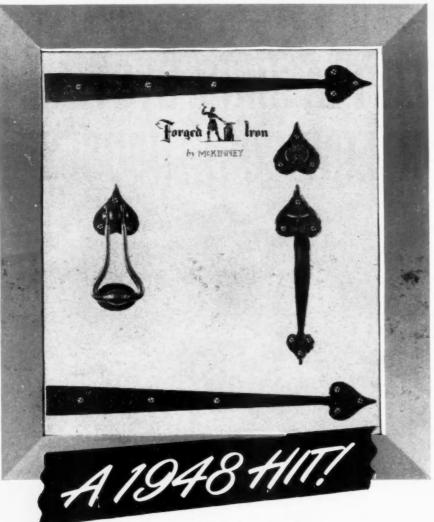
Of course, good construction calls for copper gutters, downspouts and plumbing lines, too!

## REVERE

#### COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801 230 Park Avenue, New York 17, N. Y.

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; New Bedford, Mass.; Rome, N. Y. Sales Offices in Principal Cities, Distributors Everywhere.



## MCKINNEY'S FORGED IRON HARDWARE Complete FRONT ENTRANCE DOOR KIT

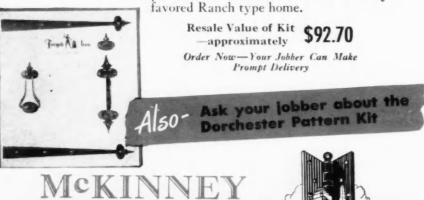
Here it is-Kit No. 24 consisting of

• 20" x 24" Display Board DB#7 as illustrated above. Samples are mounted on the board, as shown . . . FREE.

• 3 complete sets of front entrance door hardware including lock and trim for both inside and outside

ock and trim for both inside and outside.

The Heart design is the most popular of all early American patterns. It is ideal trim for the currently favored Ranch type home.



MANUFACTURING COMPANY



#### **Dealer Review**

(Continued from page 128) at an opportune time when the big guns of the political campaign will be warming up. Certainly it will have the cordial endorsement of nearly every candidate.

**Sound common sense** is still an attribute of the American home folk. Just when you are sure that they are only interested in what they can have without working for it, comes someone like Mr. Harry Umphrey, a big potato man in Aroostook County, Maine, who asks that the government support price on potatoes be reduced. He says he thinks it should operate like the fire insurance he carries, which is just enough to give him a new start if he has a fire, but certainly not enough to show him a profit from a calamity.

**Bureau of Labor Statistics figures** show that we are spending less proportionately for housing than we are for luxuries. Economic rent which includes the rental value of ownerowned homes as well as the returns from rented space is only 37 per cent above 1940, while our expenditures for recreation are up 113 per cent, jewelry 250 per cent, travel 266 per cent, liquor 141 per cent, tobacco 88 per cent, food 148 per cent, clothing 165 per cent, shoes 133 per cent. In 1946 we spent 24.8 billions of dollars for luxuries like the theatre, horse racing, liquor, tobacco, jewelry, barbering, beauty treatments, and travel, compared to only 12.6 billions of dollars for housing. Even clothing and shoes cost us more than housing, by 5.7 billions of dollars. In effect housing has been subsidizing luxury items

Remember that it takes practical men—men who know how to do things, to make the economy of this country work, or to really get housing built. The social planners never have to show accomplishment. They only need to talk of dreamy Utopias.

#### Strong Retires From Cook County Association

JOSEPH L. STRONG, who has served as secretary of the Lumber Trade Association of Cook County, Chicago, for the past ten years, has retired from active participation in the group's affairs. Prior to assuming the secretaryship of the Lumber Trade Association Mr. Strong served predecessor Cook County dealer associations. He retired because of age.

Miss Phoebe Hess, who has been Mr. Strong's assistant for many years, has assumed his duties. There is no change in office address or telephone numbers.

(Continued to page 132)

# Your portable SKIL Saw is a Radial Saw quickly and easily with SKIL Saw RADIAL SUPPORT

SKIL Saw Radial Support makes all these cuts with precision



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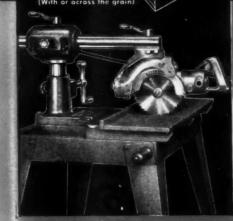


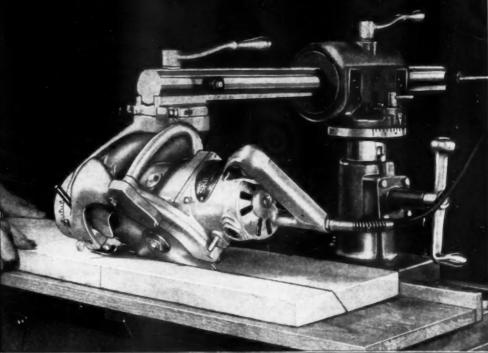






GROOVE





EXTRA USES...EXTRA SAVINGS! FAST, ACCURATE SAVING
ON COMPLEX CUTS! SIMPLE TO CONVERT!

• You'll make even more cuts ... and cut even more costs ... with SKIL Saw Radial Support for your SKIL Saw. Together, they're perfect for gang-cutting lumber ... for precise compound cuts like bevel-mitres ... for ripping, cross-cutting and grooving. Conversion is easy, and your SKIL Saw is ready quickly to go with you to other jobs. It will pay you to ask your SKIL Tool Distributor about SKIL Saw Radial Support today!

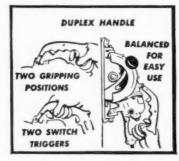
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PNEUMATIC

SKILSAW, INC. 8033 Baton Avenue, Chicage 30, III. Pectery Branches in Principal Chica

SKILTOOLS, LTD., 66 Pertland St., Terente, Ont.





These important features plus plenty of power and rugged construction make Stanley Saws a practical choice for on-the-job cutting. W8 Saw cuts any depth from 0 to 23/4", operating from any A.C.-D.C. outlet. Round arbor shaft permits using any standard saw blade. Each Saw is furnished with ripping gauge and packed in Stanley metal carrying case. More hours of profitable work in this portable electric saw ... more jobs you can use it on, more power on every job, more years of

See Stanley W8 Saw or W7 and W9 models at your dealer's, or write for circular. Stanley Electric Tools, 492 Myrtle St., New Britain, Conn.



Saw Track No. 158 changes the Stanley Saw into a bench saw for production work.

The greatest name in tools

HARDWARE . HAND TOOLS . ELECTRIC TOOLS

#### Dealer Review

(Continued from page 130)

#### "Red Label" New Name for No. 2 Red Cedar Shingles

"RED LABEL" is the new grade name for No. 2 Certigrade red cedar shingles, according to an announcement by the Red Cedar Shingle Bureau.

The change in name, states W. W. Woodbridge, secretary-manager of the Bureau, has been made in deference to hundreds of requests from retail lumber dealers.

"A great many dealers have reported to us that their sales of our second-grade Certigrade shingles are being retarded by the No. 2 name itself, which does not adequately reflect the many features of the shingle," Woodbridge said.

"It should be emphasized," he stated, "that this is a change in name only, and that the grade remains the same as before. The change is being made solely tor merchandising purposes - to help the dealer in selling these shingles. It also should be remembered that the Certigrade labels on other grades are not affected or changed in any way."

#### Charles Ashman Heads **Commission Lumbermen**

CHARLES ASHMAN, Chicago was elected president of the N .tional Association of Commission Lumber Salesmen at the annual meeting in Madison, Wis., recently. He succeeds A. T. Brink, Kansas City, who served several terms. Other officers named are Fred Widman, Louisville, Ky., first vice president; Martic Crow, Jr., Elkhart, Ind., second vice president; James Grant, Jr., Williamsville, N.Y., secretary.

#### Oklahoma Dealers Meet in Oklahoma City Oct. 5, 6

PLANS are being completed for the second annual meeting of the Oklahoma Lumbermen's Association to be conducted in Oklahoma City October 5 and 6. More than 2,000 are expected to attend.

Paul Leonard, who is in charge of the 1948 convention, announces that three months in advance of the opening date 115 exhibitors had already contracted for space to demonstrate their products and services to visiting dealers. A statewide initiation ceremony for the International Concatenated Order of Hoo-Hoo is scheduled for October 5, to be under the personal

(Continued to page 134)

#### Modern Methods of Home Heating

By J. L. SHANK

Consulting Engineer

INTRODUCTION BY

S. KONZO

Professor of Mechanical Engineering at the University of Illinois



#### CONTENTS

Gravity Warm Air Heating

Methods for Figuring Size of Plant Required, Installation

Procedure

Forced Warm Air Heating
An Answer to What Is "Air Conditioning"?

One Pipe Steam Heating

Latest Information on Modern Boilers, Radiators

One Pipe Hot Water Heating
"The Hot Water Heating System Has Had a Change of Face"

Radiant Heating with Hot Water Floor and Ceiling Panels

Description, Function, Installation Methods, Advantages

Heating Commercial Buildings Good Information on Selection of Units

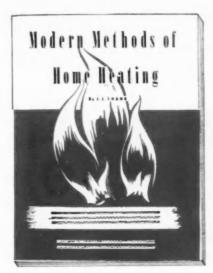
Heating with Floor Furnaces
Installation Advice, Comparison to Other Methods

Radiant Heating with Warm Air
Information About "The Most Discussed Subject" in Modern
Heating

Radiant Floor Panel Heating with Hot Water
Basic Advice on Correct Installation and Operation Techniques

Radiant Baseboard Heating
How Uniform Temperature Is Achieved

Heating System Controls
Fourteen Different Types Discussed



The most comprehensive book on modern home heating published. It covers all the latest methods of heating homes and small commercial buildings, written in language the layman can understand.—

Included is the most discussed subject in the heating field today—Radiant Heating. Everyone interested in home building should have a copy of this book.

A builder will find this a valuable source of information. It will enable him to discuss authoritatively the advantages of the various types of home heating.

Special trade contractors will find it of special value.

The prospective home builder will also find in it the information he needs.

Profusely illustrated with photographs, charts, tables and diagrams. Each article is a complete study of the heating requirements of an individual house.

66 Pages 111 Illustrations

## ONLY \$100 PER COPY

Special prices will be quoted on quantities of 100 or more.

Size 81/4" x 111/4"

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#### AMERICAN BUILDER

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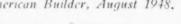
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direction of R. E. Saberson, Snark of the Universe, "Bill' Morgan is secretary of the new Oklahoma association.

**Dealer Review** 

#### **Dealer Offers Suggestions** On Granting Credit

HAWLEY WILBUR, well-known retailer of West Allis, Wis., listed a few pertinent suggestions on credit to dealers attending the Louisiana annual convention recently. Because credit ledgers are again taking on weight in most building material stores throughout the country, and dealers have not been confronted with normal credit conditions for a number of vears, the ideas Mr. Wilbur offers are especially timely. He says:

"1. BEWARE the man with a good steady job who asks for credit. The very fact that he has a "good steady job" makes it easy for him to get more credit than he can handle. Sell this man on installment financing. If his credit is good he will get the loan and you will get the cash.

2. BEWARE the credit customer too easily sold. Price, quality and terms mean little to those who do not expect to pay.

3. BEWARE the man who comes loudly knocking a competitor. Perhaps he has exhausted his credit elsewhere. Business rivalry can be the dead beat's best friend.

4. BEWARE the household where there is domestic conflict. Many an orphaned bill has been left on the merchant's doorstep by the divorce court.

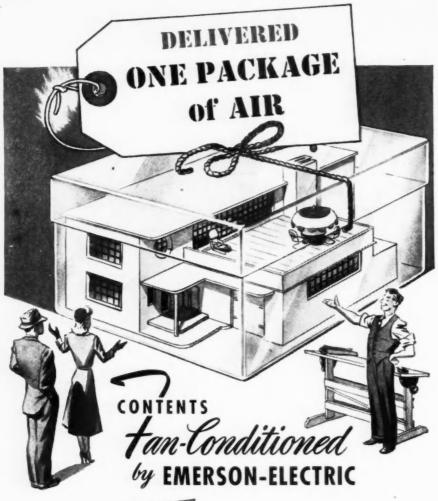
5. BEWARE the lawyer or preacher who are slow to pay. The former thinks he is too slick to be made to pay; the latter thinks it is uncharitable to ask him to pay.

6. BEWARE the tenant or any man who asks credit in the name of another. Get a written order and play safe.

7. Never tell a man he can pay "whenever he gets ready." That time may never come; the bill is never due, and it would be a breach of faith to ask him until he is ready to pay.

8. Have customers sign receipts for delivery of materials. Most disputes can be avoided or settled with such evidence.

9. Women are more honest than men, but the female dead beat is the worst of the species.





EMERSON-ELECTRIC Home Cooler Fan

Installed in attic, this powerful belt-driven fan forces out day's accumulation of hot air, pulls in cool night air through open windows and doors. Designed to give years of quiet, trouble-free service in all types of homes. Available in 36, 42, 48-inch blade sizes.

You deliver a package of comfortable living whenever you include EMERSON-ELECTRIC Ventilating Equipment in your plans and specifi-cations. For years these sturdy fans have helped architects and builders please hard-to-please clients. On your next assignment, make sure the air you "package" within roof and walls is fan-conditioned for comfort.

For installation data, refer to Emerson-Electric Catalog in 1948 Sweets Archi-tectural File, or write for Folder No. B35 today. The EMERSON ELECTRIC MFG. CO., St. Lonis 21, Mo.

EMERSON-ELECTRIC

Kitchen Ventilator

> Adjustable to any wall thickness in either brick or frame construction, this dependable fan quickly



whisks out kitchen heat and cooking odors, prevents spread to other rooms. Available in wall or ceiling types.

EMERSON EMERS



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When you build homes with brick you get the world's best advertising—the praise of well satisfied customers.

Your customers take pride in their homes (and your work) and they say so. They like the feeling of warmth and security, the beauty and look-of-quality, brick gives any home. They appreciate the economy in construction, the fire safety and rugged structural strength of brick.

What's more, the homes you build in brick continue to give satisfaction—because brick keeps its looks without costly or troublesome maintenance—because all of brick's values are lasting. In today's market this assurance of

quality in materials is an aid to good workmanship and is particularly vital to your reputation as a builder.

You'll get valuable help in producing "perfect advertisements" for your work in our new plan book.

#### SEND TODAY FOR "BRICK ENGINEERED HOMES"

Here are plans for six beautiful brick homes, all modular coordinated. They'll help you build with engineered efficiency—better, and at lower cost. Send 25¢ for your copy to Structural Clay Products Institute, Dept. AB-8, 1756 K Street, N. W., Washington 6, D. C.

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#### **Innovations in Planning**

#### Assure Increased Interest in 1949 NAHB Convention Exhibits

THE exhibit prospectus and floor plan for the 1949 NAHB convention and exposition was in an advanced stage of completion in mid-July, according to Paul Van Auken, convention director.

All of the space for the 1949 exhibits will be in the Stevens Hotel, with none available in nearby hotels as in 1948. This arrangement was made possible through an agreement with the Stevens Hotel whereby additional exhibit booths will be constructed on the second floor, adjacent to the Grand Ball Room, in which all general convention sessions will be held.

The added exhibit space will accommodate 35 booths, some six feet by eight feet, and others eight feet by ten feet.

The convention director has worked out a new booth layout in the main exhibit hall. The new layout blocks out all posts in a manner that makes every booth a perfect rectangle. Heretofore, many of the booths had posts cutting in at the rear corners. The manner in

which the posts are blocked out of the spaces in the 1949 layout diminishes no exhibit areas, and provides the same number of booths as in former years.

Another innovation next year is the screening off of the east bay from the remainder of the main exhibit hall. A temporary partition extending to the ceiling will be erected along the entire length of the east bay, with doors at each end. Space in the screened off section will be limited to exhibitors of power tools and equipment. The purpose is to permit such exhibitors to operate their equipment during the exhibit hours. without interfering with manufacturers who exhibit building materials and appliances. At former conventions of NAHB, manufacturers of power tools and equipment were not permitted to operate because of the noise factor.

According to Mr. Van Auken, the concensus of those who have examined the new layout and added facilities is that a measurable forward stride has been taken in the interest giving the exhibitors much greater flexibility, and maximum opportunities for designs with added appeal to the builders.

The dates of the 1949 convention are February 20 to 24. The prospectus and floor plan will be mailed to exhibitors shortly after Labor Day. It is expected that the first assignments of space will be made about October 1.

The new layout also provides facilities for manufacturers who produce small building accessories, and do not require standard size booths in the main exhibition hall. A limited number of such spaces has been allocated.

Mr. Van Auken, in commenting on the 1949 convention plans, urged that manufacturers who want preferred positions pay particular attention to the deadline dates set for applying for such positions. After the deadline date all exhibit spaces necessarily will have to be allocated in accordance with what remains unreserved.



## Catalogs and

446—CENTRIFUGAL SELF-PRIMING PUMPS—are featured in a four-page, two color bulletin issued by Gorman-Rupp Co., Mansfield, Ohio. The characteristics, performance and uses of the company's new lightweight pumps are pictured and described. The patented priming principle which makes possible a money back guarantee with each unit is covered at length. Various models are shown,

447—PLYWOOD PROPERTIES AND BUILDING USES—are described in the new 1948 catalog of the Douglas Fir Plywood Association, Tacoma 2, Wash. Reference is given to fir plywood grades as they exist under the present Commercial Standard CS45-47. The booklet is profusely illustrated and contains valuable finishing data. An important feature covers the use of plywood on exteriors.

448—NATIONAL ELECTRIC "800" FLOOR BOX—is the title of Catalog No. 553 published by National Electric Products Corp., Chamber of Commerce Bldg., Pittsburgh 19, Pa. If is an illustrated review of floor box and service fittings for light, power, telephone, signal and bell system floor convenience outlets.

449—ASPHALT FLOOR CARE—a practical pamphlet on the subject of maintaining asphalt tile floors is available from the Asphalt Tile Institute, 101 Park Ave., New York 17, N.Y. The first treatment after floor has set, how to bring out and protect colors, and how to remove stains and prevent scarring are high spots of the pamphlet.

450—ANNIVERSARY IN AMBLER—is title of an attractive 16-page, two-color booklet being distributed by Keas-

bey and Mattison Co. in honor of the company's 75th anniversary. The booklet explains the first use of asbestos by the Greeks in 450 B.C., and then traces its development up to today. It is profusely illustrated.

451—BUILT-UP ROOFING SPECIFICATIONS—are given in the new 1948 catalog offered by The Philip Carey Maufacturing Co., Dept. 803, Cincinnati 15, Ohio. The Roof-finder Index which shows how to select the correct type of bonded built-up roofing together with complete drawings and material specifications for both hot and cold process built-up roofs comprise its contents.

#### SERVICE COUPON-CLIP and MAIL to CHICAGO

Readers Service Department American Builder, 105 W. Adams St., Chicago 3, III.

(August, 1948)

Owe

Please send me additional information on the following product items, or the catalogs, listed in this department:

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OCCUPATION\*

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**GET THESE** 

## L bonus values

with FIBERGLAS\* Insulation



#### in PERFORMANCE

Not only is FIBERGLAS Insulation an extremely effective barrier to heat loss, but its glass fibers will not rot, burn, disintegrate or pack down. Continuous vapor barrier on FIBER-GLAS Roll Blankets guards against condensation.

> Save scarce fuel . Insure comfort Insulate with **FIBERGLAS**



## 2. in INSTALLATION

Made in convenient forms for every building need, FIBERGLAS Insulation is light in weight—easy to handle and install. It comes in compression packages that save you space in the warehouse, on the fruck and on the job.



in SALABILITY

"Everyone knows FIBER-GLAS!" Home buyers, archi-"Everyone knows FIBER-GLAS!" Home buyers, architects, builders and lending agenties recognize it as top-quality cies recognize it as top-quality insulation. This widespread acinsulation. This widespread acinept profitable sales for you. more profitable sales for you.



#### 4 in CUSTOMER SATISFACTION

The lasting efficiency of FIBERGLAS Insulation adds decidedly to the owner's comfort and satisfaction in his home. And you can have no better salesman than the owner who is really pleased and proud of his place. Assure satisfaction . . . with FIBERGLAS.

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OWENS-CORNING BERGLAS

BUILDING INSULATION

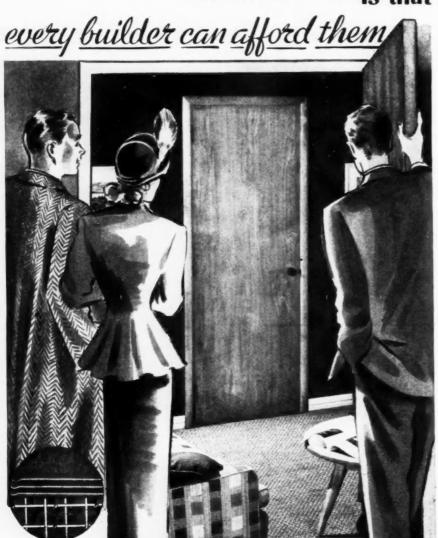
AVAILABLE THROUGH 4 DISTRIBUTORS

TIGER

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#### The beauty of PAU

## DOORS is that



U.S. Pat. 1,887,814. The exclusive interlocking grid core within the Rezo door allows constant air circulation, adds extra

Fortunately beaustrength, provides greater ty and economy go hand in hand in

Paine Rezo doors, give you both a sales approach to your customer and a practical approach to your job. Pre-fitted and light in weight, the 13/4" Paine Rezo is quickly hung. The clear flush surface takes little time for painting or staining, goes twice as fast as a panel door . . . specific advantages that make the installed cost of Paine Rezo doors no more than ordinary doors.

The air-cell construction features are exclusive and patented-minimize warping and shrinking, provide the greatest dimensional stability of any door. Home buyers benefit, too, from values like this ... and there is no denying how much these smartly styled doors can do to make small rooms seem more spacious and charming. Because these built-in qualities never fail, over two million Paine Rezo doors are in service today the choice of America's leading contractors and builders. Ask your dealer for Paine Rezo doors, or write for a factual

Manufactured by the

LUMBER CO.,

#### **Bathrooms Sell Houses**

(Continued from page 95)

cut. All work is subcontracted but scheduled to permit crews to work all year around. Basement work, for example, is speeded in late summer to provide a backlog of work for cold

This type of planning permits simultaneous work on 25 homes; in 1941 the rate at Bassett Park, another Gerholz project, was only ten. The work is done in crews, separate ones for foundations, framing, finishing, plumbing, and wiring. Timing is essential for necessary teamwork.

Glass block panels cost about one dollar per 8-inch block installed. They have added nothing to the over-all cost of the house but have increased its salability, Gerholz reports.

The Mott Park development, now half completed, is important as an index to home buyers' tastes and desires. Earlier homes were built with unfinished second floors, but current ones include one or two finished upstairs rooms because of demand. Fireplaces have been added for the same

Salesmen report that the glass block panels are good selling features and are being used in three other locations beside the bathroom. One panel beside the front door daylights the vestibules: two flank the front-of-thehouse picture window, and a large 6x9 foot panel is installed at the rear of the dining room to introduce daylight and provide privacy.

Gerholz finds that offering the houses as complete packages with no "extras" is favored by most buyers. Current prices range from \$10,450 to \$14,500 according to the number of rooms, alterations to fit individual tastes, and the lot size. The basic floor dimensions are 26x30 feet or 30x30 feet: overhangs provide additional

In addition to such essentials as water, gas, sewage, and electrical systems, the original purchase price includes the following:

One-car attached garage with drive, sidewalks, street paving, and rough grading; fruit cellar, laundry trays, gas-fired incinerator, 30-gallon automatic hot water heater, 110,000 B.T.U. forced air, oil burner with two 275-gallon storage tanks; kitchen electric clock, ventilator, cabinets, inlaid linoleum floor, two-compartment sink, and glass splash panels behind and above stove; one room paneled in knotty pine or gum, door-length mirror in master bedroom, closet rods, shoe racks and similar equip-

Kitchens do not include stoves and (Continued to page 140)

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## "SOUND-AS-ROCK" OPPORTUNITY

for able-bodied, intelligent men to build a Lasting Success!

A limited number of

# FORMSTONE FRANCHISES Available

Exclusive rights to apply the patented FORMSTONE Process, for new construction and renovation of exteriors and interiors. A hand-sculptured, modern, real-stone-finish that can be applied over any surface: shingles, weatherboard, brick, stucco, cinder block, or concrete block. FORMSTONE initial cost is last; no repair or refinishing. Permanently enhances the value of any home or establishment. Successfully applied to more than 2,500 homes nationally during 13 years.

\$150.000 is an easy *yearly* sales goal or your FORMSTONE business. This mount of work can be done by four

crews of five men each. The resultant profits will be very satisfactory. With efficient operation, you can easily achieve a 39% gross profit on this volume of business. Each FORMSTONE job creates many others. A year-round business—exteriors in summer, spring, and fall; interiors in winter.

The charge for the FORMSTONE franchise in each territory is \$2,000.

#### Here's What You Get

- The exclusive right to install FormStone in your territory. This assurance is further backed by our exclusive patent rights.
- 2. Complete training in the craftsmanship of applying FORMSTONE for one or two me-

chanics in the FORMSTONE School, including materials for training.

- 3. Training in selling, designing, estimating, etc., for your executives. Our factory representatives will come to your territory to help you get started.
- 4. Assistance in securing proper equipment required for application of FORMSTONE,
- Sales and advertising assistance to help you establish FORMSTONE in your territory; and the privilege of obtaining from us, at cost, complete 4-color literature, plates, and other sales aids.

For Exclusive Franchise write to:

#### The FORMSTONE Co.

200 S. Franklintown Pd. Baltimore 23



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#### IMMEDIATE SHIPMENT OF **COMPLETE METAL DOOR UNITS**

... eliminate four installation steps

Fenestra Fireshield Swing Doors come to the job complete with frames and hardware machined, fitted, ready to assemble. Four steps are eliminated: mortising, drilling, tapping and prime painting are done at our factory. That saves construction time and money. No special skill is required for a good fit. STANDARDIZED FOR LOW COST—the manufacturing economies of standardization enable us to offer these doors for far less than many doors now on the market.

IMMEDIATE DELIVERIES—standardization also enables your dealer to carry ample stocks to meet your needs.

#### ORDER THESE SIZES TODAY

2'8" x 6'8" 3'0" x 7'0" 4'0" x 8'0" 2'8" x 7'0" 3'8" x 7'0" 5'0" x 10'0" Your dealer can furnish these doors right or left hand, with metal panels or glass, with or without muntins. Above sizes available in pairs.

ATTRACTIVE, QUALITY DOORS—up to Fenestra standards in every respect. Suitable for many types of buildings-apartments, stores and other commercial buildings, and factories, to mention a few. UNDERWRITERS' LABEL. Doors of same design are available with Underwriters' B Label.

For further information, call the nearest Fenestra office or write to Detroit Steel Products Company, Dept. AB-8, 2260 East Grand Blvd., Detroit 11, Mich.

Fenestra Fireshield swing and slide METAL DOORS

# When Does the Heating Season \*\*Begin\*\*\* \*\*Begin\*\*\*\* \*\*Begin\*\*\* \*\*Begin\*\*\*\* \*\*Begin\*\*\*\* \*\*Begin\*\*\* \*\*Begin\*\* \*\*Begin\*\*

#### For Builders ...

Many builders are buying (A) Quikheters today... for the homes they're building today. Since blue-prints include all the seasons, builders are as interested in heating comfort and economy today as the homeowner will be in January...and both of you will be interested in the extra home comfort, convenience and value of the (A) Quikheter.

#### For Dealers and Distributors . . .

It's here now! Built-in wall heaters like the @ Electric Quikheter know no specific selling season. As long as homes are being built, planned or modernized, the @ Quikheter will continue to be a season-less, profitable item.



#### For Homeowners...

They are interested in heating any time of the year. Even in the summer homeowners are cleaning, repairing or improving their heating systems ...in cool fall weather or in early spring, homeowners need and want the fuel-saving comfort of the @ Quikheter...and in cold, blustery winter weather, there's nothing more comforting and convenient than the instant heat of the @ Quikheter...especially for the early morning shower, for dressing, or for guaranteed cozy warmth in the nursery, guest room or rumpus room.

There's Always a Selling Season for the

## OUIKHETER

4 545ETAICH

In the bathroom electric @ Quikheters are used morning after morning for quick warmth when showering or shaving...for quick drying of clothes (or hair)...and for supplementary heat day or night.

These attractive, built-in wall heaters are easy to install and economical to operate wherever instant heat is desired ...in nurseries, bathrooms, bedrooms, rumpus rooms or guest rooms.

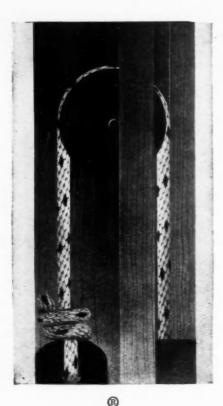
We're telling your customers (homeowners) about the "built-in" comfort, convenience and economy of the @ Quikheter in leading trade and consumer publications. Be ready to supply the demand...for any season.

Write Today for New Low Prices . . . or for Folders, Bulletins or General Information.



Makers of BUSDUCT . PANELBOARDS . SWITCHBOARDS . SERVICE EQUIPMENT . SAFETY SWITCHES . LOAD CENTERS . QUIKHETER

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#### SPOT SASH CORD

Simplicity — no other device is as simple or as permanently efficient for balancing double-hung windows as the time-tested combination of Spot Cord, pulleys and weights. Perfect and permanent balance and noiseless operation are assured. There is nothing to get out of order.

The part that takes the wear is the cord — and Spot Sash Cord will last almost indefinitely. It is made of extra quality fine cotton yarn, firmly and smoothly braided, and guaranteed free from imperfections.

Identified by our trade-mark, the Colored Spots (Reg. U.S. Pat. Off.) Send for sample card with table showing right sizes for different weights.



#### SAMSON CORDAGE WORKS

BOSTON 10, MASS.

(Continued from page 138) refrigerators, but Gerholz, a franchised dealer for these appliances, is now planning to make them part of the package.

Items above the purchase price include two-car garages, screens and storm sash, combination doors, extra bathrooms, breezeways and terraces.

The six-room house has a dinette-snackbar-kitchen combination which Gerholz reports is a popular feature. This area averages 12x15 feet and embodies a U-shaped kitchen. The sink and counter are on one side of the U, a soffit cupboard, over a snackbar, is on the other. This counter and cupboard "partition" off the dining area, which has built-in china closets and expansive window area. A glass block panel is frequently substituted for the latter to insure privacy.

Sidewalls and roofs have cotton blanket insulation; outside trim is generally wood shingle; oak flooring and copper piping are used throughout. Each house is guaranteed for a year against structural defect.

Mott Park is the second large-scale project of the Gerholz firm. The other subdivision, Bassett Park, was started in 1941, finished in 1946, has 601 homes of from four to five rooms each. These sold, without garage, for under \$6,000. Both parks are within an average of ten minutes by automobile from downtown Flint.

The reputation of Gerholz as a builder can be gauged by his prominence in the field. He has been president of the Michigan Real Estate Association, Michigan representative to former President Hoover's housing conference, chairman of the Emergency Committee of the National Association of Home Builders, and in 1943, became the association's president.

In 1945 he was appointed a member of the Construction and Civic Betterment Committee of the Chamber of Commerce of the United States; in 1946 he became a trustee of the Urban Land Institute of America.

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#### Firm Offers Samples of New Sheathing Paper

SAMPLES and Specifications for Hos-Tite, reportedly accepted as meeting FHA. Specifications for Class A sheathing paper, are being offered by the Hosking Paper Co., Wilmette, Ill.

This sheathing paper is also recommended for concrete curing, and for lining silos, because it has spun glass fibres to reenforce the nailing edge, and has a high wet strength. The surface is treated to resist scuffing and fungus rot.

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# The New Improved Adjustable

# CEILING VENTILATOR by Leigh

Space heaters, pipeless furnaces, etc. can now give uniform heat in every room.



The Floor Register used on LEIGH Adjustable Ceiling Ventilators is made with the new UNI-GRID construction — resulting in a stronger, better looking register. Full depth grids, heavy cross members, seamless corners, flat walking surface and the new dial operator that "rolls" the valve open — features offered only by LEIGH. Complete ventilator consists of black Floor Register, white Face and telescoping metal box — packed in individual containers.

JEigh BUILDING PRODUCTS **DEALERS!** If you are not handling the LEIGH line of metal building products — write today for Catalog 47-L and complete prices, etc.

A Product of-

AIR CONTROL PRODUCTS, INC. Coopersville, Michigan

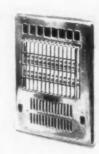


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#### **NEW PRODUCTS**

(Continued from page 126)

thermostat is finished in ivory enamel; it has a 25 amp. rating, 115 volts or 15 amp., 230 volts A.C., and carries the Underwriters' Approval.



The Markel Electric Products, Inc., and LaSalle Lighting Products, Inc., Buffalo, N.Y., developed this heater. The unit is identified as the Series 230 Built-In Wall Fan-Glo Heetaire. This model Fan-Glo Heetaire is a recessed heater that distributes both infra-red rays plus fan-forced heated air.

#### GAS FURNACES

AB880

Two gas model furnaces designed for basement installation in small homes have been added to the line of Superfex furnaces. Made by the Perfection Stove Co., Cleveland, Ohio, these furnaces are known as the Model 62 "Homogen-Air," and Model 60 "Thermaflow." The Model 62 has three-stage burners



and a two-speed blower which combine with specially-designed controls to deliver a continuous supply of warm air. It is designed for use with natural, mixed or manufactured gas. Model 60 "Thermaflow" furnace provides a continuous forced circulation of heat for the modern low-cost home. The fire rarely goes off in heating weather; therefore, there is always heat in the furnace and ducts, which maintains a certain thermal pressure and keeps air in natural circulation.

(Continued to page 144)





Eagle RTU is *pure white lead*. It has all the famed durability, beauty and economy of this most famous of painting materials.

**And,** Eagle RTU comes factory-mixed for perfect brushing. It goes to the job in the original container, all set to open, stir and apply.



Eagle RTU spreads smoothly and easily. It covers completely, leaving no brush-marks, has real white lead hiding and staying power.

**And,** Eagle RTU makes a smooth, gleaming elastic coat that won't crack or scale... defies time and weather, ages evenly by gradual chalking.



Eagle RTU is favored by builders for time and labor saving convenience . . . because it enables them to do *e hetter* job more efficiently.

**And,** Eagle RTU is preferred by homeowners because of its beauty and durability . . . because of its *whiter* white that stays white *longer*.



Eagle RTU is white lead paint in a modern form.

**And,** Eagle RTU is backed by Eagle-Picher's 104-year-old reputation as well as by the 2,000-year-old reputation of white lead.



#### EAGLE PURE WHITE LEAD Paint

#### THE EAGLE-PICHER COMPANY

HER CINCINNATI (1), OHIO

Member of the Lead Industries Association

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Series etaire. is a both heated

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# Water Circulators

**Patented Pumping Arrangement Keeps** Oil Flowing Constantly Through Bearing

LIFETIME SERVICE

Large Reservoir of Oil Sealed in Bracket

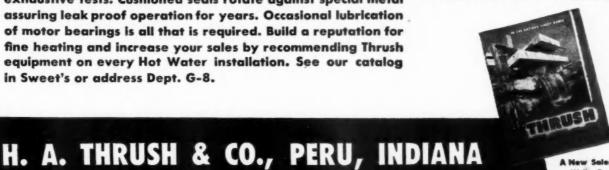
Micro-finish **Lapped Seal**  **Cushioned Oil Seal** 

**Water Seal** 

IT'S BETTER! Twenty years of Circulator manufacturing experlence is evidenced in this advanced design. Undue wear and servicing is eliminated by the patented built-in oil lubrication system. This large oil reservoir in the Circulator bracket provides positive lubrication without attention. No more grease cups to fill. Double oil and water seals have been proved by exhaustive tests. Cushioned seals rotate against special metal assuring leak proof operation for years. Occasional lubrication of motor bearings is all that is required. Build a reputation for fine heating and increase your sales by recommending Thrush equipment on every Hot Water installation. See our catalog in Sweet's or address Dept. G-8.



DOUBLE OIL AND WATER SEAL



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# Is there a "Best Floor" for the Bathroom?



This floor, Wrightex, soft-surface Wright Rubber Tile — No. 703 Blue-cream, and No. 701 Goldbrown, with Wright-on-Top Compression Base. Photo and bathroom style — courtesy Crane Co. You'll see it in actual colors, in Aug. HOUSE BEAUTIFUL and Sept. HOUSE AND GARDEN.

#### We nominate WRIGHT RUBBER TILE

Compare this "candidate" with all other types of flooring. When you do, we believe you will discover that Wright Rubber Tile possesses the good features of all types of floor, and, in addition, outstanding advantages of its own.

The rich colors of Wright Rubber Tile floors laid 25 years ago — or longer — are as bright and new-looking as if laid yesterday. Free from the stains and marks of dirt, acids, and grease, their defiance to wear is notable . . . demonstrating also the unmatched ease with which Wright Rubber Tile is kept clean and lustrous. That, in a nutshell, explains its growing leadership in today's home-floor trend, and the mounting preference of architects and builders . . . reveals its enduring beauty, its real economy . . .

CFOIS METHON OF COMMERSION AAS

DON'T MISS — Wright-on-Top, the new

Wright-on-Top, the new compression base for all type floors. Always beautiful—will not scuff or mar.

and earmarks Wright Rubber Tile the "lifetime floor."

#### TAYLOR MANUFACTURING CO.

America's oldest maker of rubber floor tile
3050 W. MEINECKE AVENUE
MILWAUKEE 10, WIS.

#### WRIGHT RUBBER TILE

Floors of Distinction

#### **NEW PRODUCTS**

(Continued from page 142)

#### FAN PACKAGE

AB8809

Amer

The Silent Breeze Gold Seal line of ventilation equipment recently put on the market by Holcomb & Hoke Manufacturing Co., Inc., Indianapolis, Ind., includes the "H.M." Fan Package. Designed for use where space is limited, this package includes a horizontally-mounted ventilating fan; a new type built-in suction chamber; and an automatic ceiling shutter and electric motor. The unit is completely assembled at the factory, except for the automatic



time switch and ceiling shutter. Installation is simple: cut a hole in the attic floor for the automatic outlet shutter; install shutter and adjust tension; place the suction chamber, which includes fan, over shutter opening in attic floor, and complete wiring. No more than 24-inch clearance between attic floor and roof is required.

#### CONVERTIBLE STEEL FURNACE AB8816

The Airtemp Division, Chrysler Corp., Dayton, Ohio, have added a square-cased, all fuel, convertible heavy steel furnace to their Airtemp line. The new furnace may be converted from hand-fired coal to oil, gas or stoker. The grates can be removed or installed in a matter of minutes. The furnace comes



in either gravity type or complete winter air conditioner, and in sizes small enough to heat a five room house or large enough to heat a 12-room home. The steel cabinet is thoroughly modern and smartly styled with moulded panels and rounded corners. The blower compartment may be installed in either side of the cabinet, adding to the flexibility of the unit.

(Continued to page 146)

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# BRIXMENT MAKES GOOD WORKMANSHIP EASIER!

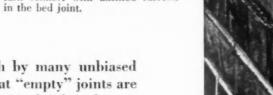


Nail holes are a frequent cause of leaks in masonry walls. If these holes happen to connect with voids in the head joints, water may enter, and then travel through connecting voids in the bed joint until it finds an outlet on the inside of the wall. When a nail or line pin is used, the hole should be plugged with mortar immediately after the nail is removed.

When a nail or line pin is used, the hole should be plugged with mortar as soon as the nail is removed.



Nail holes frequently connect with voids in the head joints which in turn connect with unfilled furrows in the bed joint.



Water entering through the nail holes may travel through connecting voids and find an opening to the inside of the building.

Twenty years of research by many unbiased engineers have proved that "empty" joints are the chief cause of leakage in brickwork.

Brixment mortar is so unusually rich and plastic that any bricklayer can easily deliver full joints. With Brixment mortar there is far less temptation to do the "spot and dab" kind of brickwork which is most vulnerable to leakage.

In addition to extreme plasticity, Brixment has higher water-retaining capacity, better bonding quality and greater durability under repeated freezing and thawing. It is this combination of advantages that has made Brixment the largest-selling masonry cement on the market.





YES, JOHN, YOUR GOOD WORK IS BEING SPREAD OVER MORE JOBS BECAUSE YOUR HELPERS CAN HANDLE MORE OF THE WORK



AND BOY! HOW EASY IT IS TO SELL HOUSES WITH CIRCULATING FIREPLACES, WITH GAS AND OIL SUPPLIES UNCERTAIN

# Fyro-Place

• The New Scientific Steel Form costs as little as \$33, but saves as much as 16 hours of labor, as well as cost of firebrick and damper.

Avoid errors and costly repairs or rebuilding. Fireplaces built around the Fyro-Place are bound to function perfectly.

- 1. Perfected by pioneers in the field.
- 2. Thousands in successful use.
- 3. Nationally advertised.

Write for all the Facts and the large edition of our FREE BOOK, "100 Fireplace Ideas."

PRICE FIREPLACE HEATER

53 Austin Street,

Buffalo 7, New York

#### **NEW PRODUCTS**

(Continued from page 144)
FLOOR SANDING EDGER AB8807

A high speed 1¼ H.P. floor sanding edger that weighs only 25 pounds is available from the Porter-Cable Machine Co., 1714 N. Salina St., Syracuse 8, N.Y. Guided by two handles, the edger will glide over the work on two ball-



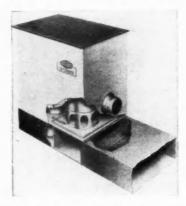
bearings; its own weight supplies the necessary pressure against the floor. Powered by a Universal A.C. or D.C. 115-volt salient-pole motor, the disc revolves at 3,200 r.p.m A hardened steel chrome guard prevents the disc from damaging upright objects, yet permits the abrasive disc to sand flush with baseboards, stair risers, or quarter rounds without touching them. Dust is sucked into the intake surrounding the disc, through a dust channel inside the frame, and

blown into a zipper bag that is easily removed.

#### FLOOR FURNACE

AB8827

An oil-burning floor furnace with an auxiliary cold air return duct system is available. The cold air return duct system draws cold air from remote corners of the building and circulates warm air uniformly through every room. Constructed of



welded, aluminized steel with a bakedenamel, exterior finish, this floor furnace requires a 24½ by 36½ rough floor opening. The entire combustion chamber and heat exchanger may be lifted out as one unit for easy servicing. Manufactured by the Oran Co., 2232 S. Third St., Columbus, Ohio, the unit is available for immediate delivery.

(Continued to page 148)

# 12,000,000 SQUARE FEET PLASTIC WALL TILE

This is the industry estimate for production during the past year. "STYRON" BRI\*TILE made by Acorn is a leader in the field. Among its installation are many new homes—the LOOK HOUSE—the BLANDING DREAM HOME and restaurants, dairy bars, hospitals and night clubs in New York City. On display at Architects Sample Corporation BRI\*TILE has a number of distribution areas open. Write today. Dealers write for name of nearest distribution.

## ACORN PLASTIC ENGINEERS, INC.

170 Broadway New York 7, N. Y. Rector 2-3469 Factory
561 East 18th St.
Erie, Pennsylvania

Now a clo on, I been

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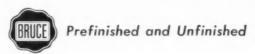
# A trade-mark you can DEPEND ON

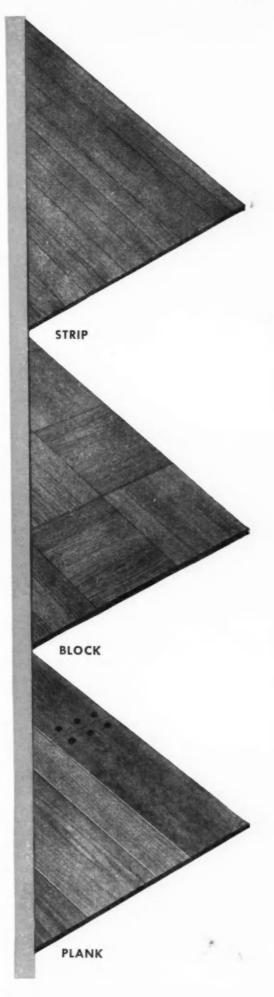
For Finer
Hardwood Floors

Now that the days of buying "whatever is available" are drawing to a close, people are once again turning to trade-marks they can depend on. In hardwood flooring the popular trade-mark today, just as it has been for more than a quarter of a century, is the familiar Bruce seal. Backed by a world of experience and knowledge in flooring and floor finishing, this is one of the best known trade-marks in the building industry. Owners, architects, builders, and lumber dealers all know they can depend on it for floors of quality, style, and beauty.

1. L. BRUCE CO., MEMPHIS 1, TENN., World's Largest in Hardwood Floors.

**Bruce Hardwood Floors** 





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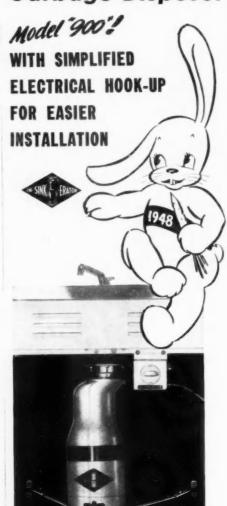
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The IN-SINK-ERATOR Model "900," built on the integral design principle employed by IN-SINK-ERATOR for ten years (longer than any other in the disposer field) comes complete with a positive acting, reversing control switch and a simplified electrical hook-up for easy installation in custom dwellings or project housing. IN-SINK-ERATOR's automatic reversing action, complete self cleansing streamlined design and two-directional shredding have set the pace for ten years. It's the disposer the plumber likes, too... because it's distributed

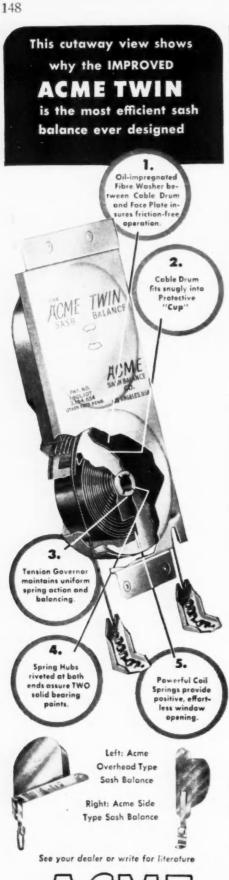
FXCIUSIVELY THROUGH PLUMBING CHANNELS

#### EXCLUSIVELY THROUGH PLUMBING CHANNELS



IN·SINK·ERATOR MANUFACTURING CO. RACINE, WIS.

Exclusive Manufacturers of Automatic Garbage
Disposers Since 1938



SASH BALANCE COMPANY

1626 Long Beach Ave.

Los Angeles 21, Calif.

**NEW PRODUCTS** 

(Continued from page 146)

WINDOW ACCESSORIES

The Tel-O-Post Co., Akron, Ohio, have added an all-aluminum window canopy, and an all-aluminum flower box to their line of building products. The canopy, finished in green, is adjustable in length so that one size fits all window casement widths from



26 inches to 47 inches. Its depth is 131/2 inches which provides protection without shutting out light. The upper edge has a leak-proof flashing seal. The flower box has adjustable brackets, which make it possible to hang the box below any window or place it on any flat surface inside or outside the home. The overall size is 28 inches long, 73/4 inches wide, 6 inches deep.

#### PACKAGED DRAINAGE ASSEMBLY AB8820

For communities where the code permits, The Pioneer Co., 1050 Century Building, Pittsburgh 22, Pa., offers a packaged sewage and drainage as-



sembly. The package includes the entire waste system: a stack base fitting with integral cleanout; the continuous wastes and fixture traps and the basement floor drain over and above the usual roughing material. Constructed for 3-inch roof vent, and 11/2 inch drains, the assembly has another outstanding feature. It permits the use of regular 2 inch by 4 inch partitions between the bathroom and kitchen and utility rooms. The package is available for immediate delivery.

(Continued to page 150)

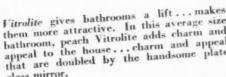
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Beautiful... practical... a real touch of glamor. No wonder a Vitrolite bathroom catches the eyes of home-buying prospects. Gray and mahogany Vitrolite place this bathroom far above the ordinary—add value and sales appeal. Architect: Leichenko & Esser, Chicago.

# to catch the eye of HOME BUYERS

From the very first glance, lustrous, colorful Vitrolite\* makes a favorable impression. Its smooth, glistening surface tells a woman at once that it will be easy to clean. Colors are deep, rich, beautiful-Cadet Blue, Peach, Jade, Red, Light Gray, White, Black, Alamo Tan and Mahogany.

OF GLASS

Vitrolite makes a lasting, favorable impression, too ...keeps owner satisfaction at a high level...creates enthusiasm that home owners pass along to their friends. That means good will for you.

A bathroom of Vitrolite is the mark of an up-to-

date house. Used for entire walls and ceilings, it has maximum sales appeal. Used more sparingly as wainscoting, it still adds lasting color, sparkle and practicality.

Include Vitrolite in your plans—for new homes and for remodeling . . . for bathrooms, kitchens and breakfast rooms. Also for walls and fronts of commercial buildings of all types.

Vitrolite is easy to apply with mastic over any relatively flat, hard surface not subject to warping. For full information, write to Libbey Owens Ford Glass Company, 9588 Nicholas Bldg., Toledo 3, Ohio.





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# TOUCH-PLATE

America's Ginest Light Control System

RESIDENTIAL DEVELOPMENT



Parker Construction Company's 32-unit bousing development at Pomona, California, features the Touch-Plate System of low voltage remote control lighting.



Vic Bongberg, electrical contractor for the Parker Pomona development, installed Touch-Plates throughout the 5room homes for added beauty, safety and convenience.



## MORE SWITCHES BETTER SWITCHES

AGENTS

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Portland, Seattle, Salt Lake City.



#### NEW PRODUCTS

(Continued from page 148)

SURFACE MAILBOX

AB8805

A surface mailbox, welded throughout, making it one strong piece of solid brass that is non-corroding, and, therefore, rustproof and weatherproof, is being marketed by the Trine Manufacturing Corp., 1430 Ferris Place, New York 61, N.Y. It has a self-closing letter drop, name card holder, large,



flexible newspaper and magazine clip, a staple that fits any padlock, and a big, easy-to-manage door to its roomy interior. Designed to blend with any style house, this mailbox comes in one size—11½x 6x2¾ inches.

#### TOOL HANDLE

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A patented chuck that will make a real tool out of any type file, razor blade, hacksaw blade, reamer, bit, or scraper is on the market. Precision made from the finest quality steel, diecast alloy and Oregon maple, this handle will hold any shape shank. It is a positive non-slip gripping mechanism that operates similar to a drill

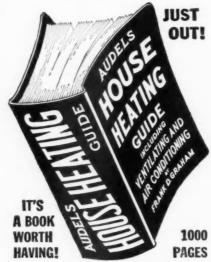


chuck. A twist of the wrist changes it from one tool to another. The Speed Corp., 2025 N.E. Sandy Blvd., Portland 12, Ore., are the manufacturers.

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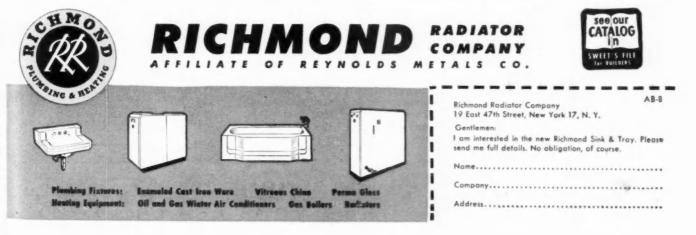
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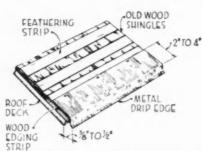
This article, the fourth in a series, gives recommendations of the Asphalt Roofing Industry Bureau for application of individual hexagonal shingles

#### Asphalt Hex Shingle Application

INDIVIDUAL hex shingles, used largely for re-roofing, are of two types, staple down and lock down. As the name suggests, a staple-down shingle is fastened by a staple at the bottom. The lock-down type is secured by a tab inserted under adjacent shingles.

Before shingle application over an old roof begins, the deck surface must be repaired and leveled. Then an "eaves flashing strip" of 55-pound eter and long enough to penetrate through the old roof covering and at least 34-inch into the deck lumber. When application is on top of old wood shingles, nails should be not less than 134-inches long; on top of old asphalt shingles not less than 11/2-inches long.

Application can be started at either end of the roof, continuing toward the opposite end, or can begin in the center, working toward both ends.



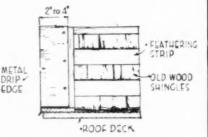


FIGURE 1 shows metal drip edge on old roof to be re-roofed with asphalt hex shingles

or heavier, smooth-roll roofing or 90-pound, mineral-surfaced, roll roofing is applied flush with the edge of the wood edge strip at the eaves, extending up the roof to a point at least 12 inches beyond the inside wall

Along the eaves and the rakes, lav a strip of sheet metal about 26 gauge or the equivalent, painted on both sides, and secure it with galvanized roofing nails spaced 8 to 10 inches apart along

However, the center-starting method must be used if it is desired that the cut portions of shingles be the same at both rake lines. Horizontal and vertical chalk lines should be used to insure good shingle alignment.

Application of staple-down shingles -(Figure 2)—Lay a starter course with shingles from which the portion below the side tabs has been cut away. Place the first cut shingle with its cut edge flush with the eaves

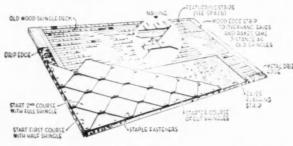


FIGURE 2 shows the correct method of application of staple-down asphalt hex shingles

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its inner edge. Bend it down even with the eaves and the rake lines and extend it back 2 to 4 inches from the edge of the deck. (Figure 1).

Nails for individual hex shingles should be galvanized roofing nails with heads 3/8-inch or more in diamand the end of the left tab flush with the rake edge. Continue along the eaves, abutting the cut shingles and fastening with nails 1 inch above the eaves line and 4 inches apart.

Each individual shingle in all the (Continued to page 154)

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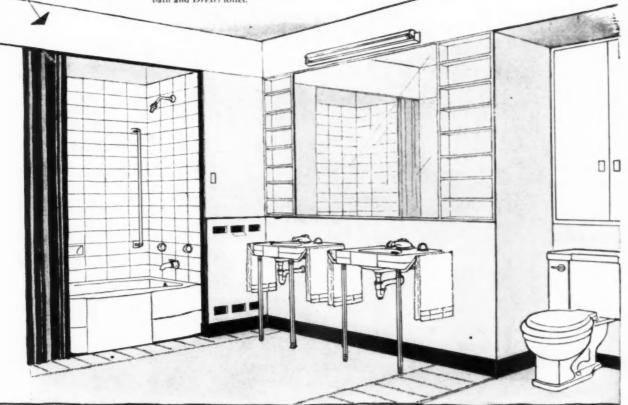
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(Continued from page 152)

regular courses is fastened with two nails and with one staple inserted by a stapling machine made for that purpose. A nail should be located 1 inch up from the bottom of each shoulder tab and 1 inch in from the end. The staple fastener is applied at the bottom of each shingle so that the shingle is secured to adjacent tabs of shingles in the course below, but not to the shingles in the second course below. Never use a nail where a staple is specified.

For application of regular courses starting from the left, begin the first course at the rake edge with a shingle cut in half vertically. Align the cut edge of the right half of the shingle

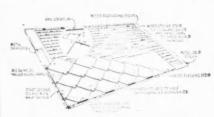


FIGURE 3 demonstrates way to apply lock-down hex shingles

with the rake edge, fastening it with a staple at the bottom and with a row of nails 1 inch in from the rake edge and 4 inches apart.

Continue the first course with fullsize shingles laid with shoulder tabs abutted and aligned to the chalk lines, carefully verifying the placing of each shingle. Secure each full-size shingle with a nail in each side tab and a staple at the bottom. The last shingle at the right is to be cut off as necessary for alignment with the

Start the second course with a fullsize shingle and continue with fullsize shingles across the roof. The remainder of the courses start alternately with half and full-size shingles aligned with the left rake edge.

Application of lock-down shingles—(Figure 3 and Figure 4)—Lay a starter course, using shingles from which the bottom has been cut away on a line joining the two side corners.

When starting application of lockdown shingles from the left, begin the starter course with a half shingle which has been cut in half vertically,

(Continued to page 156)

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(Continued from page 154)

placing the cut edge flush with the left rake and the bottom flush with the eaves. The remainder of the starter course consists of half shingles placed so that side corners touch. Nailing is the same as for the starter course of staple-down shingles except

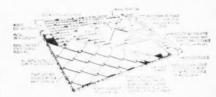


FIGURE 4 gives the method of applying lock-down asphalt hex shingles where the starter course is cemented, not nailed

that a nail is placed in each side corner. The first unit at the left is nailed along the rake edge.

Start the first course with a fullsize shingle from which the locking tab has been cut off. Check the work with vertical and horizontal chalk lines as the course is continued across the roof. Nail in side corners as specified for the starter course and as shown in Figure 3 and Figure 4.

The second course is started with a shingle cut in half vertically and shingles are laid across the roof, se-

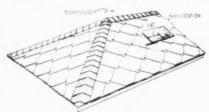


FIGURE 5 illustrates hip and ridge shingling with lock-down hex Shingles. Hip and ridge shingling with staple-down hex shingles is similar to this method

curing each with two nails and locking down the lower corners by inserting locking tabs under the edges of adjacent shingles in the course below. Fasten the left edge of the cut shingle with three nails evenly spaced along the rake. Continue up the roof, beginning courses alternately with full and half shingles aligned to the left rake edge.

Hips and ridges can be finished with special shingles made by most manufacturers or with shingles cut from mineral-surfaced roll roofing (Continued to page 158)

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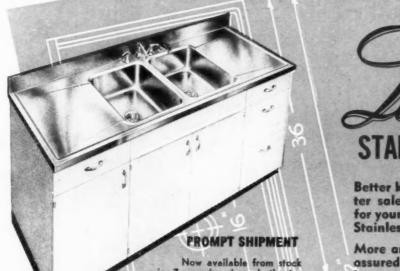
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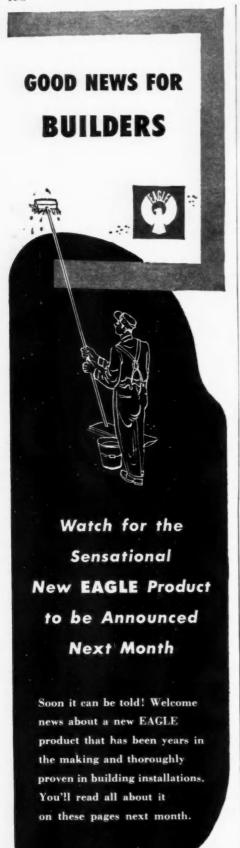
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(Continued from page 156)

or regular roof shingles. Don't use metal ridge roll with asphalt roofing because corrosion of the metal might discolor the roof.

Figure 5 shows hip and ridge shingling with lock-down hex shingles. When using regular shingles, bend each shingle down its center in order to have equal exposure on each side of the hip or ridge. Lap shingles so that each one will be exposed 5 inches.

Fasten each shingle with a nail on each side of the hip or ridge,  $5\frac{1}{2}$  inches from the exposed end and 1 inch from the edge.

In windy locations it is recommended that all shingles along rakes and eaves be embedded in asphalt plastic cement. Along the eaves the cement is applied to the eaves flashing strip. A starter strip of roll roofing about 8 inches wide is applied along the rakes to take the cement.

#### Ceco Steel Products Moves To New Office Building

THE general offices of Ceco Steel Products Corp., manufacturer of metal construction products, were moved June 25 and 26 into a new office building at 5601 West 26th Street, Chicago 50, as another step in the firm's country-wide expansion program. The general offices previously had been located in the firm's Plant No. 1, adjacent.

The new general office building is of reinforced concrete construction with face brick to match the factory



ATTRACTIVE entrance to this modern building is of limestone and granite

building. It is two stories high and is designed so that additional stories may be added should it be necessary to expand general office facilities. The entrance to this building is of limestone and granite. The lobby is of marble and flexwood with cove lighting.

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(Above) Model 520-B. Holds 100 lbs. of coal.

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#### Catholic Church Holds **First Building Convention**

MORE than 2,200 pastors, religious superiors, and college officials from 33 states, two Canadian provinces, and four foreign countries gathered in Chicago, June 30, July 1, 2, and 3, at the Stevens Hotel for the first National Catholic Building Convention and Exposition. Architects, contractors, and manufacturers of building materials, furnishings and equipment joined the administrators to discuss details of the Catholic Church's gigantic building program which will average about one billion dollars a vear for the next ten years, according to the Business and Industry Foundation of the college of St. Joseph's of Indiana, sponsor of the convention and exposition.

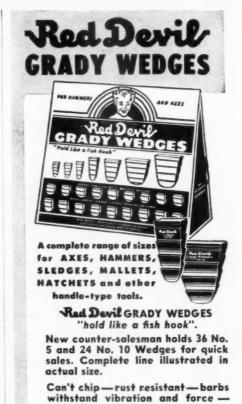
In a program keynoted by His Eminence Samuel Cardinal Stritch of Chicago, the administrators heard a long list of building and allied industry authorities address the convention's five general sessions which covered planning, architecture, construction and materials, equipment, and the general outlook. Five major panel sessions were also conducted covering remodeling, the church, the school, the institution, and the recreation center.

In the panel sessions which were held Thursday afternoon, July 1, some of the country's leading authorities conducted intensive discussion periods on current building topics.

Edward G. Gavin, editor, The American Builder, was chairman of the Remodeling Panel, and was assisted by John J. Riordan, lighting engineer, Commonwealth Edison Co.; Phillip Creden, advertising director, Edward Hines Lumber Co.; Rupert J. Weber, president, Jacob G. Weber Co., heating engineers and contractors; Joseph S. Kearney, Northwestern Plumbing and Heating Co.: William J. Lynch, general contractor; and Alfred Siewert, A.I.A., architect, Milwaukee.

Nine members of the Catholic hierarchy attended the convention, four of them acting as presiding officers. included Cardinal Stritch; Archbishop Kiley of Milwaukee; Bishop Mussio of Steubenville, Ohio; Bishop Bennett of La-Fayette in Indiana; Bishop Marling of Kansas City; Bishop Griffin of Springfield, Ill.; Bishop O'Brien of Chicago; Bishop Ryan of Bismarck, N. D.; and Bishop Cuinco of the Philippine Islands. Delegates from Brazil, India and Cuba were also registered.

At the close of the convention Bishop Marling outlined plans for the 1949 convention and exposition.



A Product of DEVIL TOOLS IRVINGTON, N. J., U. S. A.

they won't work loose.



NICHOLLS carpenter squares, plastering trowels, cement finishing trowels and plasterer's hawks are well known by the building trades all over the world. They are known to be the highest quality produced. For sale by your local hardware or in quantities by your hardware jobber. The best costs no more -- insist on NICHOLLS - in the familiar ORANGE carton.

Fine Tools Since 1896



# ONLY \$25\* per 1000 square feet for

(\*approximate contractors' price)

# both Insulation and Vapor-Barrier



# Announcement

For the first time packaged Radiant Heatheat at 1/3 the cost of conventional heating systems—produced by the Continental Radiant Glass Heating Corp., 521 5th Ave., N. Y. 17.

See Our Announcement Next Month



CUTS WET OR DRY using Diamond or Abrasive Wheels

LOOK AT THESE CUTT

- 8" Concrere Blocks 16 seconds
- 8" Steel Channel 16 seconds Tile, Terrazzo, Marble,
- 6" | Beam 12 seconds
- 4" Cast Iron Pipe 12 seconds

8" Building Bricks - 5 seconds

WRITE US TODAY FOR Dept. A-8 Box 1363

Syracuse, N. Y. HIGH SPEED CUTTING MACHINERY 7 to 10 TIMES **FASTER** 

Slate, Asbestos Products,

Refractories

#### **Norge Makes Several Personnel Promotions**

HOWARD E. BLOOD, president of the Norge division of Borg-Warner Corp., has announced several important personnel changes in the company's sales and manufacturing departments.

Involved in the shifts were J. N. Candler, who was elevated to director



J. N. CANDLER

of manufacturing; H. L. Clary, who was named director of sales, and W. S. Law, who became general sales

At the same time, Blood announced the resignation of R. W. Gifford, vice president and assistant general manager, and I. H. Reindel, executive



H. L. CLARY

engineer, and the retirement of M. G. O'Harra, vice president and director of sales. Gifford is also chairman of Borg-Warner International Corp., and will retain that association,

Candler will have full charge of manufacturing, engineering and quality in all Norge plants. An engineering graduate of the University of Michigan in 1932, he has been with the Norge and Detroit Gear divisions of Borg-Warner, in various engineering and manufacturing capacities since 1940.

Clary has been in the appliance business since 1927 when he went to work for the Ludwig Hommel Co.,

(Continued to page 164)

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## 6 common conditions

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Ground moisture and rain held in joints, etc., of outdoor structures.



Wood used in or near the ground open to attack by termites.

## WOLMANIZED

PRESSURE TREATED

### LUMBER

protects against

# DECAY and TERMITES



3. Wherever moisture is condensed because of concrete or masonry.



4. Where steam and vapor from industrial processes are prevalent.



5. Walls, floors, ceilings subject to condensation from refrigeration.



6. Stock barns, silos and other farm structures subject to high humidity.

#### LASTS FOR DECADES

Imagine being able to tell a prospective owner that you can put lumber into his job that will resist wood-decay and termites-and last 3 to 5 times as long as ordinary wood. Would that help you sell?

"Wolmanized" pressure-treated lumber gives just that kind of performance. Actual service records prove it. And the extra cost is actually less than the cost of replacement labor alone of ordinary wood which has failed prematurely.

When your customer gets extra value and protection of Wolmanized pressure-treated lumber, you're not only making a saleyou're assured of having a lastingly satisfied customer who is often able to steer more contracts your way.

For full information and copies of actual service records, see your local dealer or write to American Lumber & Treating Company.

\*Registered Trade Mark

#### Learn more about this money-saving pressuretreated lumber

Get all the facts and figures on how Wolmanized pressure-treated lumber resists decay and termites.

Write today for this new booklet.





AMERICAN LUMBER & TREATING COMPANY

General Offices: 332 South Michigan Ave., Chicago 4, Illinois

Boston 9 147 Milk St.

New York 17 420 Lexington Ave.

Washington 5 831 Southern Bldg.

Jacksonville 2, Fla. 719 Graham Bldg.

Portland 5. Ore. 1220 S. W. Morrison St.

Los Angeles 15 112 West 9th St.

San Francisco 5 604 Madison St.

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# SEPTIC TANKS



Top quality steel tanks, fabricated by a manufacturer with over 55 years' experience. Write today for prices and complete delivery information.

BLACK, SIVALLS & BRYSON INCORPORATED

24th Floor, Power and Light Building
KANSAS CITY 6, MISSOURI

Capacity, 275 gallons. 14 gauge black steel, or aluminum . . . Legs not included. 0



(Continued from page 162) Pittsburgh. This company, oldest of all Norge distributors, received the Norge franchise in 1929. Clary, following service with the War Production Board in Washington during the war, joined the Norge factory organi-



W. S. LAW

zation as sales promotion manager in 1945, and has risen through several important sales posts since that time.

Law follows Clary into the general sales manager post, after serving for more than two years in the key position of refrigeration sales manager. Like Clary, Law also worked for a Norge distributor before joining the factory organization. He became associated with Reinhard Brothers Co., Inc., Minneapolis, in 1929, served as a lieutenant colonel in the air forces during the war, and joined Norge in March, 1946.

#### **Wood Conversion Company Announces Five Promotions**

M. PATTIE, vice president and general manager, Wood Conversion Co., St. Paul, Minn., has announced the following sales staff pro-



J. D. FISCHER

motions: J. D. Fischer to manager, building product sales; P. L. Berquist to manager, industrial product sales; R. E. Backstrom to assistant products manager; D. B. Anderson (Continued to page 166)



half-bag unit for fast production . . .

Saves time by taking one batch in the hopper while another batch is mixing. Same mixing action as large equipment, automatic water measurement, rapid discharge. Air-cooled B&S engine. Capacity 31/2 cu, ft. plus 10% overload.

Write for specification sheet

MULLER MACHINERY CO., Inc. METUCHEN, NEW JERSEY







No. 20

Arteraft stock rails No. 395 in 4 lengths. Priced per pair. 2'6"- \$12.00 3'6"- \$14.00 3'0"- 13.00 4'0"- 15.00 STOCK PORCH COLUMNS

Corner & Single-panel Height corners 12" panels 7' 0" \$25.00 ea. \$14.50 ea. 7' 6" 27.00 ea. 15.50 ea. 8' 0" 29.00 ea. 16.50 eq. 8° 0" 29.00 eo. 16.50 eo.

IMMEDIATE DELIVERY on all Artroft stock items.

Prices net F.O.8. Columbus, Ohio. Terms: Payment with order or C.O.D.

Have ARTCRAFT do your most exacting custom iron work too. ORDER DIRECT! SATISFACTION GUARANTEED!

Ohioans add 3 % Sales Tax



Write for our new 36 page catalogue ARTCRAFT Ornamental Iron Co.

724 E. Hudson St. Columbus 11, Ohio ed

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# A SURE-FIRE OIL-SAVING

# KRESKY FLOOR FURNACE

# Will Keep Your Customers Warm and Care-free this Winter

THE SECRET of KRESKY'S low-cost, trouble-free operation is the famous patented KRESKY Oil Burner, basic unit in all models. It inducts air into the oil flame in just-right amounts by an electric blower to give fast, high-low clean heat in all climates and altitudes, regardless of draft conditions. That's why a precision engineered KRESKY Floor Furnace provides your customers with abundant, clean, healthy heat, evenly distributed along floors, into drafty corners, with less oil

consumption. Your customers are freed from daily attention and costly service calls.

You can allow more "living" space, too, when you put in a KRESKY floor furnace instead of an old-fashioned space heater — something your customer will certainly appreciate. No basement needed. Dealers in all parts of the country. Write for name of dealer nearest your office.

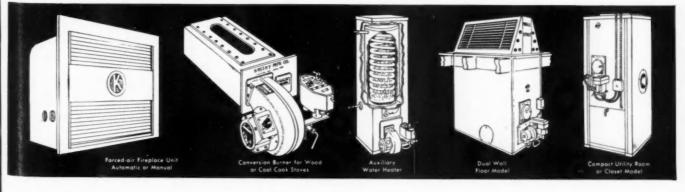


Listed by Underwriters'

#### KRESKY MFG. CO., INC.

PETALUMA, CALIFORNIA

The Best Known Name in Oil Heating Since 1910



Ami

#### COMPLETE

## **ROUGHING-IN ASSEMBLY**

Packaged!



Let advanced sanitary engineering design save you up to \$125.00 in labor and material on each house.

Only two joints to caulk. Can be installed in 3 hours. Cast iron drainage elbows and all fittings tapped for 14" pitch per foot.

Prompt delivery. Meets all requirements of Federal Emergency Code.

Nipples cut and threaded at small additional cost for 25 identical floor plans.

Order now and avoid costly delays in construction-single assembly, \$51.75. Ten or more \$48.75, F.O.B. our warehouse. Supply limited. Weight, crated, 155 lbs

Write or wire today

#### THE PIONEER COMPANY

1051-54 Century Bldg. Pittsburgh 22, Pa.

(Continued from page 164) to manager, merchandising department; and A. J. Moorman to Chicago district manager.

Mr. Fischer, who was formerly manager, specialty product sales, and prior to that New York district mana-



D. B. ANDERSON

ger, will be responsible for the sale of all building products sold by the company. Mr. Fischer joined the company in 1936 as sales representative in Connecticut. In 1942 he was promoted to New York district manager and in 1947 was brought to the gen-. eral sales office in St. Paul as manager, specialty product sales.

Mr. Berquist, formerly Chicago district manager, who will be in charge of industrial product sales, joined the Wood Conversion Co. in 1927 as sales representative; in December of 1936 he was appointed sales supervisor in the Chicago area; and in 1943 was promoted to Chicago district manager. He is a graduate civil engineer from the University of Minnesota. He will maintain his headquarters at Chicago.

Mr. Backstrom joined Wood Conversion Co, in 1927 as sales engineer. In 1933 he became manager of the sales engineering department and served in that capacity until 1938 when he became manager of the industrial sales department.

Mr. Anderson joined the company in 1933 as sales engineer. In 1938 he became manager of the sales engineering department, a position which he has held since that date.

Mr. Moorman, now Chicago district manager, joined the sales organization in 1936.

#### Steel Framing Designed To Speed Up Construction

MACOMBER, INC., Canton, Ohio, is producing a new type steel wall frame designed to speed up construction and add structural strength-at a low price.

The framing, Macomber V stud, is adaptable from a design standpoint (Continued to page 168)



All chrome, complete unit, Underwriter's Approved, fluorescent medicine cabinet—the only one of its kind on the market.

the only one of its kind on the market. This is not just a medicine cabinet. This unit takes care of the bathroom wiring, bathroom fixtures, switches and outlets all incorporated into one. The only thing necessary is a piece of BX cable to connect to the main line. This arrangement saves money for the owner as all the necessary expense for the bathroom is incorporated in the cabinet.

This Deluxe unit consisting of all chrome with all wiring, switches and outlets and plate engraved Everlast mirror retails at \$43.75.

If you are listed with Dun & Bradstreet, you may have this medicine cabinet for approval on request without investing one cent. On receipt of the cabinet, you examine it thoroughly and compare it with other cabinets on the market and see for yourself what a wonderful proposition this is.

Jobbers invited.

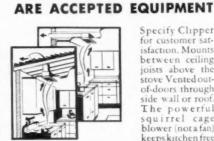
#### FLUORESCENT LIGHTING CO.

MONTICELLO, N. Y.

Telephone: Monticello 1258

#### NATIONALLY ADVERTISED

#### CLIPPER KITCHEN CEILING LOWERS



Specify Clipper for customer satisfaction. Mounts between ceiling joists above the stove Ventedoutof-doors through side wall or roof. The powerful squirrel cage blower (not a fan) keeps kitchen free of cooking grease and odors



Guaranteed 5 years - a patented partition keeps motor out of greasy air stream. Ask your elec-trical dealer or write us.

TRADE-WIND MOTORFANS, INC. 5725 S. Main St., Los Angeles 37, Calif. Send complete information on the Clipper Name.....

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# SELECT THE MODEL YOU WOULD LIKE TO INSTALL IN YOUR DEVELOPMENT AND MAIL COUPON TODAY! If you plan to build 2

# CONTINENTAL K-32 Ivory plastic and brass. Two notes, front door; one note, rear. Hgt. 42". MAJESTIC K-44 Ivory plastic and brass. Indirect night light. Eight Westminster notes, front door; one note, rear. Hgt. 54". SYMPHONIC K-40 Smallest 8-note Westminster! Only 14" high. Eight notes, front door; one note, rear. Walnut and satin-brass.

#### DOOR CHIME & CLOCK K-38

Combination Door Chime, and electric clock (Telechron movement). White enamel, 9" sq. Two notes, front door; one note, rear.



#### COMMANDER K-16

Ivory plastic and brass, or white and chrome. Two notes, front door; one note, rear. Hgt. 7".

SUPPORT THE ADEQUATE WIRING PROGRAM

# on MEMO billing!

If you plan to build 25 or more new homes in 1948, take advantage of our exceptional offer!

Select the NuTone chime you would like to install in your entire development. We will send you one on MEMO BILLING. All we ask is that you install this chime permanently in one of your model homes, with a small identification card that we supply.

Builders realize they now need "extra touches" like a NuTone Door Chime to help sell their new homes easier—quicker! Proof is the American Builder survey (Jan. '48) showing that 84% of all new homes will have door chimes. Mail coupon today!



#### NUTONE INC., DEPT. AB-1 Merchandise Mart, Chicago 54, III.

On memo billing, please send me a (model name)

NuTone Door Chime. I agree to install it permanently in one of my model homes, and attach the small identification seal.

My Name	
My Firm's Name	
Address	
City and State	
My Wiring Contractor	
His Address	
City and State	



# ORNAMENTAL IRON PORCH POSTS

# Add Instant Beauty to Small Homes

Coffman ornamental iron porch posts are hand wrought by master craftsmen, yet are amazingly inexpensive. Thoroughly practical, Coffman porch posts do the job better than wood or masonry, are faster to install, save labor, are more beautiful, give permanent satisfaction.

#### SO INEXPENSIVE BECAUSE THEY ARE STOCK DESIGNS

Coffman ornamental iron products are manufactured in stock sizes and designs, and are engineered for easy installation by anyone. Complete builders' line includes: canopy brackets; screen door grilles; silhouette

house numbers; foundation access doors; porch, balcony posts; stoop, porch, and balcony rails.

#### BEST BUY IS No. 150 Coffman Universal Porch Post

One stock post meets any height requirement from 6'-10/4" to 8'-0". Simply cut off legs as needed. An outstanding design with traditional Coffman "forge drawn tips" at inner ends of scrolls—the mark of true quality.

Write for Free Catalog of Designs, Sizes, and Prices



SINCE 1925

The R. J. Coffman Co. Inc.

Write Dept. AB

P.O. Box 259

ORLANDO, FLORIDA

(Continued from page 166) to the application of any type of finishing or insulation material. There are two general types of the framing. One is the shop-fabricated wall or partition-stud panels ready for assembly at the building site. The other type is fabricated on the site. These sections are assembled into the required framing units where the assembly, welding and handling facilities are available locally.

A Macomber stud section is made up of two V sections welded back to back with spacers between for the



STEEL wall frame of standardized parts

passage of conduit and pipe work. These stud sections are then jigwelded into a wall panel of a convenient handling size. The top and bottom track is a sturdy channel section and rod bracing is added as required. All openings are framed, ready for attachment of sash bucks. The panels usually measure about 8x8 feet.

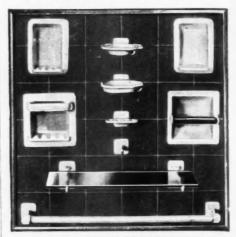
So far, Macomber has been able to supply these units only for multiple homes or apartments where the design is not varied. Now, however, the Macomber engineering department is beginning to standardize these individual framing units for dwellings with or without a garage attached by a breezeway. Each unit of standard 8-feet length plus all 16-inch, 32-inch, and 48-inch modules are being engineered for factory production and for single houses.

#### Producers' Council Names Jamieson Field Director

RUSSELL M. JAMIESON, of Washington, D.C., has been named field director of the Producers' Council, David S. Miller, Council president, has announced.

Mr. Jamieson, who for the last three years has been assistant to the organization's executive secretary, will assist the Council's 30 local chapters in developing their programs and in coordinating their activities with the Council's national programs.

#### AVAILABLE NOW!



## PORCELAIN ENAMELED CAST IRON BATHROOM ACCESSORIES

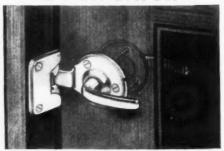
A complete line of recessed and screwon type accessories now available in quantities in standard colors—White, Black and Green.

Display board, shown above, No. D-995 furnished at net cost of applied fixtures only, with stock order.



# IWES

Non-Mortise
DOOR LATCH



The IVES Non-Mortise Latch is as easy to install as a rim latch—as neat as a mortise lock. It is made in brass or steel and is now available for prompt delivery. It is unsurpassed for easy latching and features attractive cast handles . . . longer spindle which adjusts automatically for %" to I%" doors and can be adjusted to I%" . . . improved strike allows for sagging of door.

See your Jobber

THE H. B. IVES CO.

NEW HAVEN, CONN
Quality Hardware

S I N C E 1876

Take so mu are to The so

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is painted for KEEPS

when you use the

**BONDEX** method

Attractive, long-lasting finish is assured in spite of variations in porasity

Take no chances with brick these days — new or used. Textures vary so much that paint failures can easily occur unless special precautions

The safe, sure, low-cost way is to use a first coat of Bondex Primer. This equalizes porosity and suction and provides a perfect foundation for a finish coat of Bondex Cement Paint.

Yes — for brick use Bondex Primer and Bondex Cement Paint, You add color distinction, check destructive dampness and protect the surface.

for color chart write . . . THE REARDON COMPANY .

Chicago 9 • Los Angeles 21 • Montreal 1

PUT PERSONALITY INTO YOUR HOMES WITH THESE 12 BONDEX COLORS ...

**Dutch White** Oyster Shell Old Spanish White Antique Ivory Carthage Cream Adobe Tropical Coral Spanish Buff Monastery Gray Grotto Blue lvy Green Brick Red also Pure White



cement paints combined

Amer

#### New Armstrong Fibreboard Mill Now Produces Temlok

THE daily production of the country's fiberboard production has been increased substantially with the start of production at Armstrong Cork Co.'s new multi-million dollar plant at Macon, Ga. The new plant, completely up-to-date and modern, will turn out fiberboard products made from loblolly pine under the trade name of "Temlok."

Coincident with the opening of the new plant, Armstrong called in all its building materials wholesalers, who



ARMSTRONG institutes a new distribution policy with the formation of a Building Material Wholesalers' Policy Committee to cooperate with management. Here are wholesaler members of the committee with J. V. Jones, manager of Armstrong's Lumber Dealer Products Department. Left to right: Joseph Igoe, Newark, N.J., representing North Atlantic states; T. E. Addison, Sr., Atlanta, Ga., Southern section; Mr., Jones; Fred Birkhill, Detroit, Mich., Central section; E. H. Braden, Spokane, Wash., representing the Western section

will market Temlok and other products of the Building Materials Division, to introduce a new Armstrong-wholesaler policy of cooperative effort. A Wholesaler's Policy Committee, composed of four wholesaler members from four sections of



NEW Armstrong Cork Co. multi-million dollar fiberboard plant at Macon, Ga., covers 5½ gcres. It will turn out new Temlok

the country and four Armstrong executives, was named at the last day of the convention. The wholesaler members were elected by the wholesalers themselves—not appointed by Armstrong.

J. V. Jones, manager of Armstrong's Lumber Dealer Products Department, explained that the committee would consult on such vital things as pricing policy, profit margins, merchandising policies, advertising, quality standards, manufacturing and packaging procedure. He explained that the policy committee is for the purpose of promoting unified and stable relationships between the manufacturer and distributor. No step of importance to any things vitally affecting the merchandising interests of all wholesalers will be taken by the company without consulting the committee on the proposed step.

The new Temlok fiberboard will be used to produce a number of the items that will make up the Armstrong line of lumber dealer products. This line will consist of 10 major products by September 1, and will include Temlok sheathing. Temlok insulation board, Temlok wall board, Temlok lath, Temlok panels and planks, hardboards, Temlok siding, Temlok insulating wool and Armstrong's Monowall.

#### Builders Form New Group In Seattle, Washington

A NEW local organization of builders and contractors has been formed in Seattle, Wash. It will be known as the Seattle Home Builders



BERNHARD DAHL

Association and has temporary offices at 701 Joseph Vance Building in that city.

Permanent offices, which will include a large exhibit space, are to be erected near the business center of Seattle. Building materials, fixtures and supplies will be on display there. The group will maintain an information center on building problems and will invite architects and the public to bring in plans for estimates of construction costs.

President of the Seattle Home Builders Association is Bernhard Dahl. Other officers include Lew Hykes, vice president; Olui Heggen, treasurer; and David Harvey, secretary. Directors are Ole Bardahl. H. E. Forsman and Axel Thornberg, Miss Irene Jones will serve as executive secretary.

# Company Conducts Tests To Eliminate Guesswork In Furnace Installation

TESTS to end guesswork in furnace installation have been completed by Jackson & Church Co., in their new laboratory at Saginaw, Mich. Pro-



JACKSON & CHURCH testing apparatus

fessor Lorin G. Miller, head of the department of mechanical engineering, Michigan State College, acted as consulting engineer. According to Miller, the tests introduced new accuracy into furnace construction.

Installing engineers, working with the new Jackson & Church engineering data, may now be more certain that the furnace they install will perform as the manufacturer represented it.

All tests in the new laboratory are run under actual operating conditions. The components of one set-up of test apparatus perform as follows: (1) a group of calibrated orifices determines the quantity of air circulated, (2) a separate blower and housing furnishes the motivating power to overcome the resistance of the measuring station, ductwork, and accessories, (3) ductwork dampers regulate the pressure in the flow and return systems from the unit independently. (4) manometers and gauges give measurement of desired pressures, (5) various instruments indicate speed and power, and (6) the heating unit under test is closely scrutinized throughout testing procedure. The apparatus is so designed that all the resistance may be on the intake, or on the output side, or divided between them. The unit may be tested with or without the burner in operation.

A second series of tests that may be conducted by Jackson & Church engineers involves the B.t.u. rating of the units manufactured by them. These tests are concerned with the efficiency of combustion of the burner when applied to these units, the efficiency of transfer of heat from the products of combustion to the heating surface and from the surface to the air stream, and the distribution of temperature by the heating surface.

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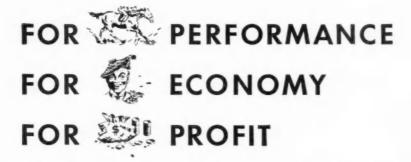
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JOIN the happy group of Heating Experts and contractors who SPECIFY SPENCER. Every Spencer is engineered by Spencer in our own research and testing facilities. Engineered for performance — ease of installation and long life. This gives you more chance to earn and keep a profit. No trouble calls—no difficult installations.

There is a size and type Spencer Boiler to meet every heating requirement—from the famous Spencer lines of residential cast iron and steel heating boilers to the complete "A" line of commercial steel low pressure units. Get complete customer satisfaction—write today and you, too, will specify Spencer!



REG. U.S. PAT. OFF.
FULLY APPROVED

FULLY APPROVED Built in accordance with ASME Code Insurance Inspected



IT'S ANOTHER AVCO PRODUCT!

# SPENCER HEATER

DIVISION - AVCO MANUFACTURING CORP., DEPT. BB-4, WILLIAMSPORT, PA.



THE NEW SPENCER SERIES "21"

Designed to burn any type of fuel easily and quickly converted. Yearround domestic service hot water. A sectional boiler designed with iron to iron air tight fit. Attractive jacket combined with modern design door assembly featuring glass observation ports.



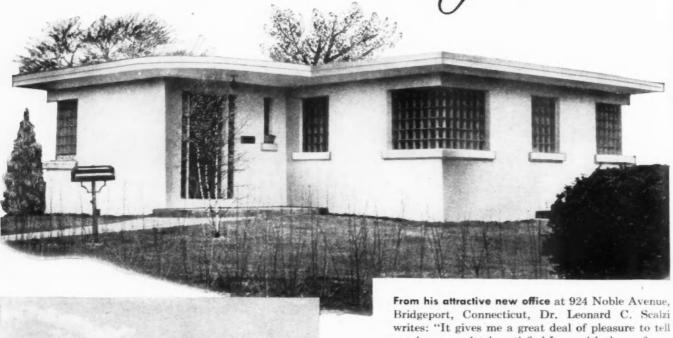
FAMOUS SPENCER SERIES "C"

Steel Heating Jacketed Boiler for homes and smaller commercial buildings. For mechanical or hand firing—easily and quickly converted. Features include easy accessibility for cleaning—precision ground water cooled flue and fire door frames. Available with year-round domestic hot water heating method.

#### MR. HEATING CONTRACTOR . . .

Remember those uneconomical, troublesome, oil fired jobs you serviced last winter? Why not render the home owner a real service and add to your own profits? Sell high efficiency low cost fuel burning Spencer Steel or Cast Iron Boilers. With oil costs at present levels, modern Spencer replacement boilers can easily pay for themselves through fuel cost savings alone.

# HERE'S THE IDEAL All-Year air a



Bridgeport, Connecticut, Dr. Leonard C. Scalzi writes: "It gives me a great deal of pleasure to tell you how completely satisfied I am with the performance of the Servel All-Year Air Conditioner which was installed in my offices last September.

"As you know, I had originally planned on using electrical air conditioning equipment, and I am glad now that I changed my mind. The Servel unit is so simple to operate, so efficient, so quiet, and so economical, that I am quite sure I made the wiser choice.

"When you told me about the Servel *All-Year* Air Conditioning, you mentioned the hundreds of owners who were completely satisfied with its performance. You may now add me to that list!"

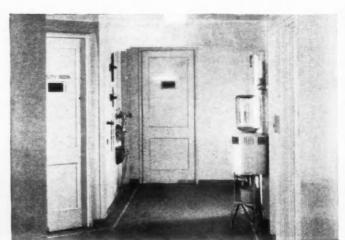
Cordially.

Leonal C Scalp M. V.

"We have been most pleased with our Servel unit. I can unhesitatingly recommend it as an efficient, economical method of yearround air conditioning," writes Dr. A. C. Traverse, of the Stephenson-Traverse Clinic, 515 College, Alva, Oklahoma.



"We selected Servel All-Year Air Conditioning for our Clinic because of its low cost and economy of operation. The heating and cooling efficiency of this unit is excellent," writes E. A. Weinheimer, M. D., 201 E. Jackson, El Campo, Texas.



Interior view of Cottage Hospital, Pomona, Cal. Dr. W. D. Stahl says: "The Servel unit has exceeded my expectations, especially since it was possible to utilize the existing duct system previously used for forced air furnace. It has proved most satisfactory."

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# conditioning for doctors' offices

# Servel <u>All-Year</u> Air Conditioning wins praise from M.D.'s the country over

You've got many points in your favor when you talk Servel Air Conditioning to doctors planning to build or modernize offices, clinics, or small hospitals. Hundreds of Servel units are already successfully providing an ideal indoor climate—the year round—in doctors' establishments, in homes, offices, and stores the country over. All the owners are delighted with the efficiency, simplicity, and economy of Servel operation, as the representative testimonials on these pages indicate.

#### Cools in summer, heats in winter

With one simple unit, Servel supplies complete, year-round air conditioning. In summer, at the flip of a switch, Servel circulates refreshingly cooled air, from which sticky, wilting humidity has been removed. Servel also filters out irritating dust, dirt, and pollen.

In winter, again at the flip of a switch, the same unit floods every room with clean, even, draft-free warmth, to which just the right amount of moisture has been added for comfort. There are no drafts, no uncomfortable layers of hot or cold air. In between seasons, when neither heating nor cooling may be necessary, Servel provides draft-free circulation of

filtered air at prevailing outdoor temperatures.

Planning your clients' buildings around Servel All-Year Gas Air Conditioning gives you an opportunity for many innovations in design. You can effect construction economies, too, which will materially reduce the net cost of the conditioner.

Doctors are air conditioning-conscious. Make the most of your opportunities by talking Servel All-Year Air Conditioning to them and to other interested clients. Send today for complete information on Servel's long list of successful installations in doctors' offices and clinics, in homes, in retail stores, and in offices the country over. Get the facts from your local Gas Company, or write Servel, Inc., 1808 Morton Avenue, Evansville 20, Indiana.



"Ideal for efficient work in medical offices," says Dr. Fred L. Scott, of Huntington Park, California, about the temperature and humidity conditions maintained in his offices throughout every season by the economical Servel All-Year Air Conditioner.





# 2 men can Carry your Shop to the job ...

#### when you use a DELTA® Multiplex Radial-Arm Saw



EVEN a cabinet-model Delta Multiplex is easy to move around. You can load it on your truck easily and take it to the job.

A Multiplex on the site is like having handy a whole shopful of tools. You can get almost any saw position with a Multiplex. And - it's quick and easy to switch from one position to another. The patented "Versatile Elbow" sees to that. It's a center-pivoted track that travels forward and backward on a rigid overarm.

You can easily cut full-length right-hand and left-band - miters from 0° to 90°! The saw blade moves through the center of the table. Thus, your work rests on the full table and you get full capacity!

The Delta Multiplex has other features for speed, safety, convenience, and economy: All controls are at the front of the machine. Accurately-calibrated rip, miter, and bevel scales are at eye level. Ball-bearing-mounted yoke moves with exceptional ease. Self-retracting saw guard adjusts itself to any position of the saw.

Your nearby Delta distributor has Multiplex models on his sales-floor now. Inspect them there - and get further facts. Send coupon for descriptive literature on Delta Multiplex Radial-Arm Saws with motors of 1/2, 3/4, 3, 5, 71/2, and 10 HP, and a range of rip capacities.



#### DELTA MANUFACTURING DIVISION ROCKWELL MANUFACTURING COMPANY MILWAUKEE 1. WISCONSIN

General Sales Office 6 NORTH MICHIGAN AVENUE, CHICAGO 2, ILLINOIS

Look for the name of your Delta distributor under "Tools" in the distributor under 'Tools' in the classified section of your tele-phone directory.

















TEAR OUT COUPON AND MAIL TODAY! DELTA MANUFACTURING DIVISION
3803H N. Pierco St. Milwaukee I, Wis Sond the descriptive the status on the complete fadial Arm Saws

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# CHRYSLER AIRTEMP

## AUTOMATIC HEATING

# INSURES CUSTOMER SATISFACTION!

# say leading builders like Sweeney-Solheim & Co.

(LINCOLN, NEBRASKA)

"Since our first interest is customer satisfaction," writes Selmer A. Solheim, President of Sweeney-Solheim & Co., "I insure that by specifying only the best in building equipment. For the past six years I have specified Airtemp furnaces in all of the homes and rental units that I have designed and built. Our customers and tenants have

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them on for x Ra-, 7½, cities.

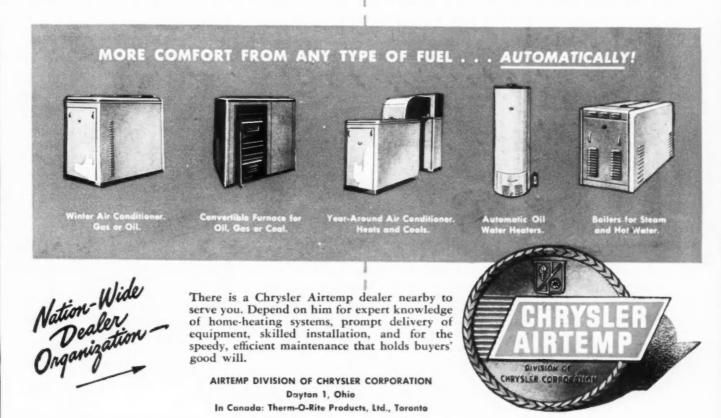
LINOIS

high praise for the performance, reliability and economical operation of Airtemp heating units."

AND-every satisfied customer makes your next selling job



just that much easier! So, specify Chrysler Airtemp heating equipment for your next project. For an easier selling job—for continuing customer satisfaction, make it a policy to always write "Chrysler Airtemp" into the specifications.





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# a home PLUS...

# The G-E Way of Living!

Easy, electrical living is a must to your new prospects. Here's how you can include the G-E way of living—and get greater profit opportunities and prestige. Cost to the buyer—only \$4.80\* extra a month—cost to the builder—nothing!

Home is shelter. Home is warmth. And home can be a tyrant, too.

But in the house that features the General Electric way of living, men and women are never slaves to the home.

The All-Electric Kitchen and Laundry, like an army of tireless servants, take over the thousand and one tasks of homemaking. It includes the following appliances—G-E Automatic Dishwasher, Disposall†, Electric Range, Cabinets, Refrigerator, Automatic Clothes Washer.

The family really lives right in a G-E fully equipped home enjoys the comfort, convenience, leisure and economy—that is the ideal of every home buyer!

People are learning to think of the General Electric way of living as a *basic part* of the home—included in the price—planned into the house from the ground up.

#### WHY GENERAL ELECTRIC?

Yes, prospects are insisting on electric appliances, and are making plans for them in their new homes.

Which electric appliances? In a nationwide survey, 51% of the men and 53% of the women said they prefer General Electric Appliances!

#### CAN THEY PAY?

People want the G-E way of living. They will buy it faster. Keep it longer. But will they pay more for it?

The answer—it costs so little more!

For an estimated average of \$4.80\* or less extra a month, the home buyer can enjoy all the advantages of a G-E equipped home. The economies of owning these appliances are often enough to cover this extra slight monthly charge.

And to buy even part of this electric equipment on the installment plan would cost them far more per month—thus putting a strain on their home budgets.

So include the G-E way of living in the homes you build. See how appealing the "packaged mortgage" plan will be to your prospects.

#### **ACT NOW**

The G-E way of living has helped big and little builders all over the nation to make greater profits and build their reputations.

The G-E Home Bureau helps you to plan G-E fully equipped homes. And it follows through in helping you sed, too!

Read the typical Home Bureau story below. And act today to include the G-E way of living in your next project!

†General Electric's registered trade-mark for its food-waste disposal appliance.

GENERAL ELECTRIC
HOME BUREAU
SUCCESS STORY
OF THE MONTH

Baltimore home buyers switch to home with General Electric Kitchen, A. J. Watkins and Son sell six out of twelve G-E fully equipped homes before completion.

We'll be glad to tell you the whole story. And we'll show you how G-E Home Bureau can help you build better houses with the G-E way of living —and sell them faster!

Just drop a post card to the Home Bureau, General Electric Company, Appliance and Merchandise Dept., Bridgeport 2, Connecticut.

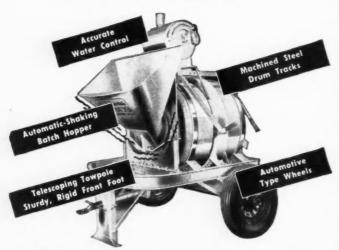
\*W hen equipment is included in a long-term mortgage.

GENERAL & ELECTRIC

THE APPLIANCES MOST WOMEN WANT MOST

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#### with JAEGER 31/2-S AUTO-LOADER

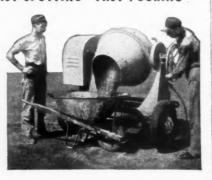


GOOD FOR UP TO 50 CU. YDS. A DAY. Fastest loading, fastest producing non-tilt half-bagger made. That 30% to 40% greater yardage sets a faster pace for your crews, means more production for wages paid. Hopper takes a fresh load while the previous one is mixing and discharging. When hopper gate is opened, hopper automatically shakes load into mixing drum — fast and clean. Mixing is practically continuous. Famous Jaeger "Dual-Mix" drum gives thorough mixing and extra fast discharge. Machined steel drum tracks, 33/4 hp engine, built for long service.

#### or 31/2-SPEEDY TILTER

FAST TOWING . FAST SPOTTING . FAST POURING

Latest half-bag enddischarge tilter. Tows
with loading end at
rear. Just back up to
the material pile, unhitch, and start mixing. No feet or legs on
discharge side. — fast
easy approach and
getaway for wheelers.
Exclusive Jaeger "V"
bottom drum doubles
the mixing action of
other tilters. Gives
cleaner discharge.



#### 6-S, 11-S and 16-S Power Loaders in famous JAEGER SPEEDLINE



Run like a clock with their machined steel drum tracks and automotive transmissions. "Skip Shaker" loader and "Pressure" discharge produce more batches per day.

Write, or ask your nearest Jaeger dealer for complete catalog M-8.

#### THE JAEGER MACHINE CO.

Main Office and Factory — Columbus 16, Ohio

REGIONAL OFFICES

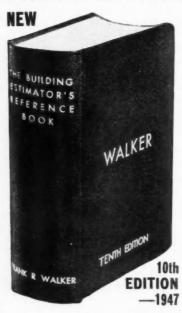
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# THE BUILDING ESTIMATOR'S REFERENCE BOOK

#### Will Help You

- Increase Your Profits
- Stop Your Losses
- Prepare More Accurate Estimates
- Save Estimating Time
- Perform Your Work at Lowest Cost



The new edition of this standard hand-book on building estimating has been revised in the light of postwar costs and production rates. It contains the inforbuilder mation a builder needs to prepare quick and accurate estimates. It gives correct methods of measuring and list-ing quantities from a set of plans, and figuring material quantities and labor hours necessary to complete any class of work.

Whether you build houses, small apartments, commercial or industrial buildings, or specialize on alteration, remodeling and repair work, you

will find in this new edition the data you need to prepare money-saving estimates with the least time and effort. If you have one of the older editions of Walker's you will find enough new material in the Tenth to make it well worth its price. 1947. 10th, 1,678 pages, 1,000 illus., 1,000 tables, 25-page index, 4½x6½, flexible, \$10.00.

#### Walker's Vest-Pocket Estimator—FREE



220 pages, 2½ x 5, tables, flexible

This ever popular little book (not sold separately) contains estimating and cost data in condensed form for ready reference. It fits the vest pocket where it is quickly available on the job or in the office. Worth its weight in gold to contractors and estimators.

#### FILL OUT THIS GUARANTEED ORDER FORM

#### American Builder and Building Age 30 Church Street, New York 7, N.Y.

Enclosed find \$10 remittance for which send me a copy of the New Tenth Edition of THE BUILDING ESTIMATOR'S REFERENCE BOOK and a Free copy of The Vest Pocket Estimator. If I do not find the books entirely satisfactory I will return them within five days of receipt and you will refund my \$10.

Name		
Address	**********	
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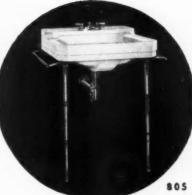


There is something exclusive about Case vitreous china lavatories—design, clever engineering, topnotch quality throughout.

For your next job, be sure to select Case lavatories. There is a wide variety of sizes and types, of which six are illustrated.

You'll save money on installation costs, and you'll be sure of customers who are really satisfied.

There's a Case distributor nearby. Consult him or write W. A. Case & Son Mfg. Co., Buffalo 3, New York.



805 WINSTON



520-C WESTBROOK



Do you

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Exclusive Circles?

Case

95 YEARS OF SERVICE

Vitreous China Plumbing Fixtures

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# lines to a smart builder



The modern homemaker Is right on her toes. She wants a gas kitchen Wherever she goes.



Gas is so easy, Dependable, too. And here, Mr. Builder, Are good tips for you:



Her husband's the buyer But humors her whim. By appealing to her You help to sell him.



When putting up houses Beyond the mains' end Pyrofax gas is The builder's best friend,



For cooking, hot water, And refrigeration, Pyrofax gas meets The whole situation



Pick Pyrofax gas For quick selling action. It gives your home buyer Complete satisfaction.



Long Branch, New Jersey October 22, 1947.

President Homasote Company Fernwood Road Trenton, New Jersey Dear Sir: —

I am one of 56 men who constructed and then lived in the Byrd Expedition buildings (at Little America, Antarctica for over a year in 1934-35) which were assembled from Homasote lined sections left over from the establishment of the first Little America in 1929. These sections were already the veterans of five years' storage in damp New Zealand warehouses, but were still so strong and easy to saw, fit, and assemble that we were considerably surprised. But when we had dug down to the old camp and found also that the Homasote in the original buildings was in perfect condition after one year of soaking in melted snow (1929-30) and five years under the terrific pressure of 20 feet of ice, we were completely sold. When other wallboards would have pulped, cracked or dissolved, Homasote remained firm and trustworthy insulation against blizzards and temperatures to minus 75!

I am not in the habit of using my few leisure hours to throw bouquets, I have too much to do, but I feel that merit deserves reward, so here goes — believe it or not, the above remarks are paled into obscurity by my present opinion of your fine product. When, as a technical observer, on the recently concluded Navy "Operation Highjump", I was one of the few who were privileged to dig down 12 feet to our old home 10 miles from the newest camp-site. I found the 18 year old Homasote in the walls and ceilings of the "Messhall" and "Science Lab" (the only buildings we could reach) absolutely unharmed by time, water, or cold. Hundreds of tons of ice had forced up the wood floors and pushed down the ceilings until they met in the center of the rooms, and puddles of ice everywhere evidenced the repeated freezing and thawing of the many seasons, but the walls were straight, unbuckled and scarcely stained.

Later, when our Expedition was leaving for its return to the States (February, 1947) and I had occasion to make one last run to the old camp to mark the entrances against the future, I hacked out a piece of the messhall wall to send to you for analysis. I am mailing it to you for whatever purpose you may wish to use it, and if you ever want me to convince some doubting customer of yours, just lead me to him. At least I can assure you that when at last I build the home I've been planning throughout several years of roaming the world, the insulation will emphatically be Homasote.

Yours sincerely,

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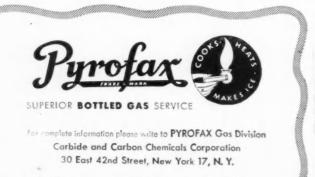
Amory H. Waite, Jr. Radio Engineer BAE II 1934-35 and 1946-47

P.S. I forgot one item. When I was carrying your specimen up the rope ladder from the whaleboat to the ship, it fell out of my pack and drifted away to sea. To my amazement its generation-old water-proofing qualities were still intact for it kept floating! Another boat speared it with a boat hook an hour later and returned it to me, punctured, but still definitely useable wallboard. The hole, therefore, is a badge of honor rather than a defect.

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HOMASOTE COMPANY, Trenton 3, N. J.



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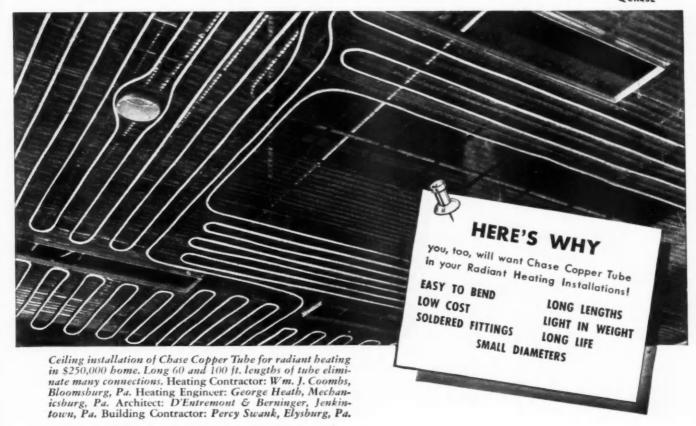
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# CONTRACTOR INSTALLS CHASE COPPER TUBE RADIANT HEATING IN \$250,000 HOME!



LiGHT weight... small diameter... two outstanding reasons why builders of huge homes and small homes use Chase Copper Tube for radiant heating. These facts are important because they make for economy. For instance, no more than the usual amount of plaster is needed for ceiling installations. Equally important are the long 60 and 100 ft. lengths of Chase Copper Tube which reduce considerably the number of connections.

Flexibility, too, is another advantage—Chase tube is easily bent and shaped by hand. And no fittings are needed at bends! All these Chase Copper Tube advantages, and many more, are worth your investigation. For up-to-the-minute information being distributed throughout the building field, request our new book on radiant heating. Write Dept. AB 88.

Suggestions for De	4.2)
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MAIL THIS COUPON	TODAYI
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THIS IS THE CHASE NETWORK . . . handlest way to buy brass

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MEWARK NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH PROVIDENCE ROCHESTERT SAN FRANCISCO SEATTLE ST. LOUIS WATERBURY (Tindicoles Soiles Office Only)



#### TRANSPARENT CLEAR ...

Crystal is invisible when dry, does not affect surface appearance.

Crystal repels water — renders surface resistant to efflorescence and staining — assuring longer protection for the beauty of your jobs.

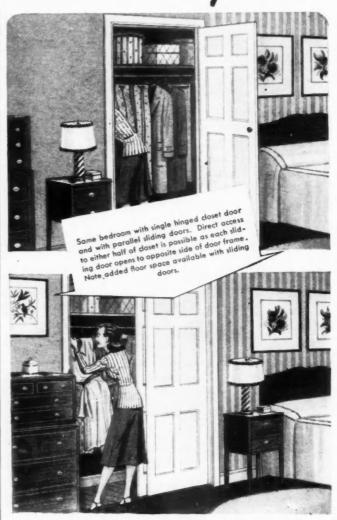
Available in 1 and 5 gallon containers and 55 gallon drums... Write today for complete details about this great advancement in waterproofing.

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WURDACK CHEMICAL CO., 4956 Fylo	er Ave., St. Louis 9, Mo
Please send me complete instruction	ons, details and prices
on CRYSTAL WATERPROOFING	at no obligation
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Address	***********************
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CONCRETE

# For more "Living" room



#### **USE VANISHING DOORS**

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Whether the job calls for tiny kitchenette apartments or a palatial mansion, there's no getting around one fact—hinged doors waste space! That is why more and more residential building plans specify vanishing doors.

With vanishing doors, sliding from side to side, there's no interference with the location of furniture, lighting fixtures, pictures, rugs—nothing in the room gets "behind the door." Used for closets and wardrobes, they permit direct access without fuss or bother.

#### Specify R-W Vanishing Door Equipment

For smooth, silent, trouble-free operation, specify vanishing doors installed with Richards-Wilcox No. 719 Vanishing Door Hanger and Wood-Lined Steel Track. No oiling required . . . hanger wheel has Oilite self-lubricating bearing, rolls on self-centering wood track lining without metal-to-metal contact.

#### For Use In 2" x 4" Studded Walls

Richards-Wilcox No 719 Vanishing Door Hangers and Wood-Lined Steel Track are designed for use in 2" x 4" studded walls This outstanding feature is made possible by the R-W engineered "Ordinary Wall" pocket.

For complete details—or free consultation without obligation—contact nearest Richards-Wilcox office.





For the newest in building and remodeling products, see your local Gold Bond Dealer first?

#### We live in a barn and like it ...

Joe and I had always been intrigued with the idea of remodeling a barn into a house. So when the housing shortage practically forced us into it, we were tickled pink! Now we have a big airy home that's really built for living—and I mean all the year 'round!

fuel bills as much as 40%. Just specify "full-thick"
Gold Bond Rock Wool batts, made by National
Gypsum. They're fireproof! And the space has the space because the space beca

barn!

Here is another Gold Bond "Idea" ad in the Saturday Evening Post. For three years now these ads which picture ideas by leading architects and designers have been appearing month NATIONAL GYPSUM COMPANY, BUFFALO 2, N. Y. after month showing folks how to put waste space to work.

GOLD BOND REMODELING IDEAS MEAN GOOD PAYING JOBS FOR YOU! Incidentally, these Post ads cost us better than \$20,000 apiece. But, if they help to throw good paying jobs your way, that's the main thing. You, in turn, can show your appreciation by using Gold Bond Building Products whenever possible.

(Appeared in full color in the Saturday Evening Post July 24th)

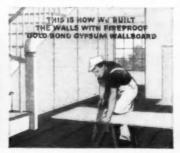
new homes, Gold Bond Gypsum Board.

e on building or remodeling. See him first! NATIONAL GYPSUM COMPANY BUFFALO 2. NEW YORK

Gold Bond Building Products add greater fire protection, permanency, and beauty at no extra cost. These include fireproof wallboard, lath, plaster, lime, sheathing, wall paint, insulation, metal lath and sound control products.









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Special Fred W Wappat-designed and correctly cut gears, deep-groove sealed ball bearings, onepoint lubrication, air-cooled motors, keep saws running smooth. ly hour after hour, in any climate. Mechanical parts easily accessible for checking, cleaning, etc.

EASY on the operator! SAFE for the operator!

#### It Doesn't Cost You A Penny To Try A Fred W. Wappat Electric Hand Saw!

Ask your dealer to order one for you, without any obligation. If you don't agree that it's the best electric hand saw you can buy, return it, and it hasn't cost you one cent!

If your dealer can't supply you, write direct to Fred W. Wappat, Inc., Mayville, New York.

guards Protect even the most inexperienced operators at

Saws their own best salesmen! Ask any Fred W. Wappat user!

MAINTENANCE problems

MINIMIZED!

Fred W. Wappat Saws

are carefully balanced for fatigue-free opera. tion—even with one hand! Operate per-

fectly in any position!

Instantaneous cut-off switches, fool-proof

telescoping blade

MODEL A-9 3-7/16" Capacity <sup>\$</sup>135.00

MODEL A-8 2-5/8" Capacity

<sup>₹</sup>115.00

BOTH SAWS ADJUST

FOR DEPTH AND BEVEL

CUTS

TALK TO A USER OF FRED W. WAPPAT ELECTRIC HAND SAWS

Fred W. Wappat, Inc. 135 Valley St., Mayville, N.Y.

on Chautauqua Lake

# Structural. Reinforcing or other Bilding Steel Shipped from Stock

Joseph T. Ryerson & Son, Inc., Plants at: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee,

plants.

# RYERSON

SAVE 61/2 SQ. FEET OF SPACE

#### WITH EVERY INTERIOR DOOR YOU INSTALL

See that shaded area (approximately 61/2 sq. ft.)! That's the space you lose every time you install a conventional door. And that's the space you save . . . with Modernfold, the accordiontype door. This fabric-covered, metal framed door gives you color-beauty, too! And its cost? Its price is no higher than the conventional swinging door-as low as \$26.00.\* With Modernfold you do not pay for trim, jamb, hardware and painting. Write for full details.

\*Price of door 2' 4" wide (F.O.B. NEW CASTLE). Choice of either ivory or beige fabric. Other Modernfolds correspondingly low priced.



quick shipment from ten





**NEW CASTLE PRODUCTS** New Castle

In Canada: Raymond Mfg. Co., Ltd., Montreal Consult your local telephone book for the names of our Installing Distributors

# 3 REASONS WHY MORE CONTRACTORS ARE USING

Keymesh

REINFORCING FOR STUCCO, OVERCOATING AND PLASTER

Contractors who have used Keymesh quickly recognize that it handles easier, keeps its shape—and they prefer to continue using Keymesh for these good builder reasons:



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en

Keymesh unrolls flat, remains flat. Insures a "true" wall by eliminating bulges and high spots. One workman easily handles a roll of Keymesh—there are no ragged surfaces to cut the hands. It's flexible, doesn't buckle, forms easily around corners.

#### TROWELS EASILY

The surface of Keymesh is smooth to the trowel in any direction. Plasterers like Keymesh. Applied with Keymesh furring nails, it keeps its proper distance from the wall—allows the stucco to be worked to an even thickness—helps eliminate "thin spots." Keymesh can be joined with compact, smooth laps—no high spots in first stucco coat.

#### REINFORCES BETTER

The open design of Keymesh permits each steel wire to be completely surrounded by the first, or scratch coat, insuring a stronger, more durable wall. Keymesh is heavily galvanized for lasting strength and corrosion resistance. It's stronger—the round cross-section is the strongest shape per weight and volume.

Contractors and Builders: Make your own on-the-job test of Keymesh. Find out how it saves lather's and plasterer's time—helps to keep your costs down. And write for your copy of the new Contractor's Data Book on Stucco and Keymesh Stucco Reinforcing.

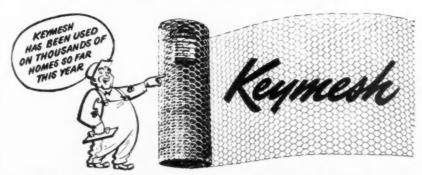
Shipped in handy sized rolls, 150 feet x 3 feet.

For EXTERIOR Stucco or Overcoating, use:

Keymesh— $1\frac{1}{2}$ " hexagon mesh, 17 gauge galvanized wire, or 1" hexagon mesh, 18 gauge wire.

For EXTERIOR Plaster or Base for Tile, use:

Keymesh—1" hexagon mesh, 20 gauge galvanized wire.



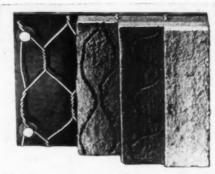
KEYSTONE STEEL & WIRE COMPANY



Keymesh being applied to side of house. Note how it unrolls flat—no bulging or sagging.

Photo shows how Keymesh reinforcing easily forms around corners without buckling.





Sectional view of finished wall. Each strand of Keymesh reinforcing is completely imbedded by the scratch coat.

Special Keymesh furring nails help to insure uniform thickness of wall.



# Balance-d Facts

for Builders, Dealers, Architects



#### NATION-WIDE DEMAND

Advertised to a magazine readership of 134,445,000 people, the "Grand Rapids Invizible" Sash Balance is preferred by home owners everywhere.



#### 2 SUPERIOR PRODUCT

Tested in the laboratory and in thousands of homes since 1939, the "Grand Rapids Invizible" Sash Balance is first choice for smooth, quiet, easy operation.



#### **3** PUBLIC ACCEPTANCE

The "Grand Rapids Invizible"
Sash Balance is easier to sell because it is advertised in national magazines with a total readership of 134,445,000 people.



It's just plain common sense to handle the invisible sash balance that's preferred by millions of home owners from coast to coast. Completely concealed in the sash itself, it is always at your service... never in your sight.

Balances 100% concealed in the sash ... no tapes ... no cables ... no corrosion. Easy to install ... just drive in two fasteners ... screw in one screw. 10 sizes fit 95% of all new and old windows ... completely interchangeable.



GRAND RAPIDS

No. 103 face plate, cone bearing type, and Nos. 175, 109, 110 sawtooth drive type sash pulleys cover 95% of all sash pulley requirements.



WRITE
for Illustrated
Specifications
and Instructions

GRAND RAPIDS HARDWARE COMPANY
GRAND RAPIDS 2, MICHIGAN
Quality Leaders in Sash Hardware for over 50 Years

# HERE'S HOW TO INCREASE YOUR FLOOR SPACE



#### AMERICAN BOWSTRING WOOD TRUSSES

Eliminate center walls and posts, increase your floor space and your building income—and they make your building more adaptable for any future alterations. AMERICAN Trusses are the most economical way to accomplish this, for they actually cut labor and construction costs. AND—there's no delay in deliveries.

25 to 150 foot spans for every type of building—garage, warehouse, church, auditorium, theatre or store. Made by the oldest and largest exclusive manufacturers of wood trusses in America.

AMERICAN ROOF TRUSS CO.



6852 Stony Island Avenue, Chicago 49, Illinois PLAza 1772 Established 1922





Last season's overwhelming demand for Firestone Velon Screening means bigger sales and bigger profits for you next Spring in made up screens of Firestone Velon.

Home owners want this sensational plastic screening because it can't rust or corrode to stain the housefront—never needs painting...takes rough handling without denting, bulging or breaking...stands up under sun and salt air.

You'll want to work with this lightweight screening because it handles so easily; cuts with a scissors leaving no sharp points; stretches well for framing; holds its shape in storage and handling.

#### Cash in on Firestone's National Reputation.

Get your order in early—and stock up to cover the demand. Ask your supplier for free merchandising aids: consumer folders, window streamers, counter cards, newspaper mats and *Velon* screening samples. Get every bit of business that's coming your way with Firestone *Velon* screening.



....

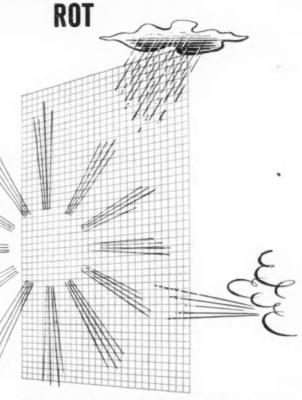
won't break



won't bulge



won't stain



You are cordially invited to visit Booths 5 and 6 at the National Hardware Show,
Grand Central Palace, New York City,
October 15th to 18th



It does not rattle . . .

It does not buckle . . .

It does not come in modular sizes . . .

You don't nail it, screw it, suspend it. You don't fasten it TO your walls or ceilings . . . because it is PART of those walls and ceilings, an integral, monolithic part of the entire building.

To the DESIGNER, it fits willingly his every form of expression. The flat surfaces, the angular; the inside, the outside curves. And any decorative treatment may be achieved, to become an integral part of the whole.

To the OWNER it provides the satisfaction of a smooth, clean, joint-free job, that is vermin-proof, rodentproof, fire safe and acoustically right. More economical in first cost than any "Substitutes", it is its long life that affords real life-long economy.

And for the best in fine finishing lime; remember Ohio Hydrate's brands:

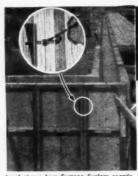
"Ohio White Finish" and "Hawk Spread".

They are identical.

They have no equal.



THE OHIO HYDRATE & SUPPLY COMPANY WOODVILLE



nset shows how Symons System speeds rection and stripping of forms. Connecting solt, passing through adjoining forms and orm tie, is drawn tight by wedge. This timple device cuts forming labor 50%.



Stripped foundation is smooth, free of tie marks. Tie rods break back easily and cleanly. Symons System of looped tie rods and connecting bolts assures uniform wall thickness.

PER WALL

SYMONS SYSTEM WALLFORMS

count your savings in 7ime. Labor. Materials

When you use the Symons System you eliminate eleven costly steps that now are slowing down and pricing up your wall form construction. Count these facts:

1 — No hammering or re-moving of nails to hold adjacent forms together.

2-No drilling for ties. 3-No plugging up of old

4—No making, placing or removing of spreaders.

5—No fishing for ties through the forms.

7 — No measuring, cutting, nailing of band iron; no adjusting of washer ties.
8 — No complicated breaking off of ties.

9—No measuring nor squaring of corners.

10—No forcing-out of forms when stripping against resistance of band iron or washer ties.

11 — No covering of marks made in concrete by ties.



re your eleven time and langs. Plus these materials preaders; nails; all waling beyond one; almost all lumber; all lumber split.

Write for FREE bocklet or system eleven profissavings.

SYMONS Clamp & Mfg. Co. CHICAGO 39, ILL. 4261 DIVERSEY AVE.





Write for CATALOG material illustrating our Hoists, Hoisting Wheels, and Winches.

KING MANUFACTURING CORPORATION

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Chicago 22, Illinois

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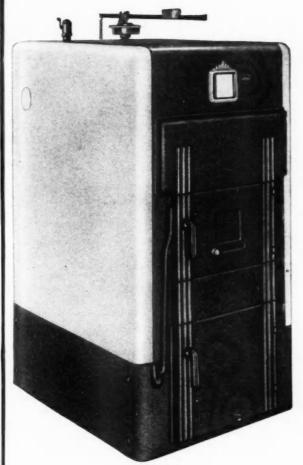
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# ADAPTABLE TO ANY FUEL



"200" SERIES
NATIONAL
HEAT-EXTRACTOR
HAND-FIRED

# CONVERTIBLE TO ANY FIRING METHOD

Here is one boiler, for steam or hot water, that assures continuous heating comfort through any type of prolonged fuel crisis. Designed for average size homes, or for small commercial buildings, the "200" Series National Heat Extractor is a truly versatile and modern cast iron heating boiler.

Easily converted from hand to automatic firing after installation, it is readily adaptable to any desired fuel or method of firing. Important, too, is its unique economy of operation—the planned result of its Extended Heating Surface, Multiple-Flue Sections, Extrathick Insulation, Special Baffles (for oil and gas firing)—and unusually generous proportions.

Domestic hot water, year 'round, is another convenience of the "200" Series, offered by the easy addition of a tankless or storage type water heater.

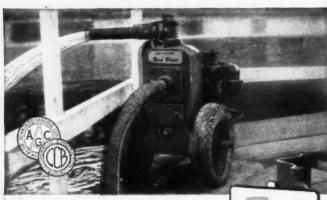


For complete information on the "200" Series Heat Extractor—or the equally versatile "100", "300", "400" and "500" Series for smaller or larger installations—phone our nearest office or write to us at Johnstown.



THE NATIONAL RADIATOR COMPANY

JOHNSTOWN, PENNSYLVANIA



Owner: Daniel O'Connell's Sons, Inc., Holyoke, Mass.

#### FAST, DEPENDABLE PICK-UP

Newest product of Worthington's over 100 years of pump-making, the Blue Brute Contractor's Portable Centrifugal Pump has built-

in self-priming and plenty of reserve power. Pneumatictired, steel wheels, or base mounted, in a complete range of sizes.



Owner: J. J. Romano, Bound Brook, N. J.

#### QUICK SPOTTING ... MIXING ... DISCHARGING

In Blue Brute Portable Concrete Mixers, many advanced features, including Ransome's famous mixing action, add up to more concrete at lower cost. Sizes: 31/2 (Tilter or Non-Tilter), 6, 11 and 16 cu. ft. Gasoline engine driven or electric power.

Your nearby Worthington-Ransome Distributor (write us for his name) has the complete line of Compressors, Rock Drills and Air Tools, Contractor's Pumps, Portable Mixers, Truck Mixers and Pavers.

Distributors In All Principal Cities



WORTHINGTON PUMP AND MACHINERY CORPORATION

Worthington-Ransome Construction Equipment Division 267 Canal Street, Holyoke, Massachusetts

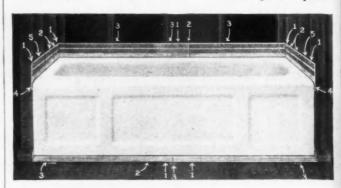
IF IT'S A CONSTRUCTION JOB, IT'S A BLUE BRUTE JOB

For Trouble-Free Bath Tub Edges

# Specify LUCKE

Leak-Proof Bath-Tub Hangers

 No Repair Expense · No Cracks No Leaks



#### The Modern Way to Prevent Leaks

There is no excuse for cracks or leaks or repair expense in good building. Leading architects specify LUCKE to overcome this problem. Hangers designed to build tub into wall.

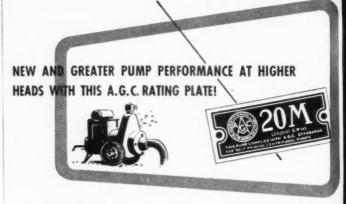
Sold by Leading Plumbing Supply Houses

MANUFACTURED BY

W. B. LUCKE.

WORK





New and higher Standards for pump per-formance have been set by the Contractor's Pump Bureau For example: A pump rated at 20M tormerly was warranted to deliver 40 G.P.M. at a 10 ft. Static Lift and Head of 80

90 G.P.M. at the same head and lift—an increase of more than 100%.

All pumps made by the Member Manufacturers listed below will meet these new and forwardcreated below will meet these new and forward-looking standards as set by the Contractor's Pomp Bureau. And remember, only the pomps manufactored by these Companies carry the A.G.C. Rating Plate, Look for this A.G.C. Ratin



#### PUMP USER'S MANUAL

CONTRACTORS PUMP BUREAU

THE ASSOCIATED GEN



CORTHINGTON FUMP & MACHINERY CORF.

CARVER FUMP COMPANY Muscaline lows HE CORMAN RUPP CO., Mansfield, Onio. MARITON PUMPS Suffrenced & J.

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Kanasa City Mic. CHINERY CORP.

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the most important news in

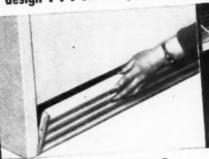
**Convector Radiation History!** 

# the NEW 772 odine Convector

NEVER BEFORE! — has a Convector offered you such exciting new beauty and design . . . so many new installation and operating features!



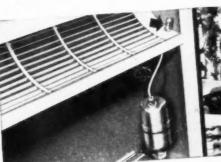
NEW DUAL-PURPOSE DAMPER! A touch of the hand operates self-positioning damper for convenient temperature control. When closed, damper conceals unique outlet grille, blends enclosure into adjoining wall.



SNAP-IN LOWER GRILLE! SNAP-IN LOWER GRILLE! Com-pletes striking appearance of Modine Convector. An optional feature you can add now or later. Snaps in or out of place without tools. Simplifies cleaning beneath cabinet.



5-SECOND REMOVABLE FRONT!
For easier installation and cleaning, effortless lifting action quickly removes entire front panel. No need to bother with screws, catches or tools. Panel is simple to replace.



CONVENIENT AIR VENTING! CONVENIENT AIR VENTING! Out of sight, yet instantly accessible, air vent can be rigidly secured to curved outlet grille as illustrated above whenever convectors are in-stalled on hot water systems.



VERSATILE ENCLOSURE DE-SIGN! Styled for modern interiors, Type F Convector (shown with dam-per closed) is ideal for recessing— either partially or fully (as illus-trated) or for exposed installation against a wall.

Whether it's a modern apartment, new home, school, hospital or office . . . here is heating equipment styled to match the beauty of modern interior design! Available in four cabinet styles in a wide range of modular sizes. Get all the facts. Call your Modine Representative listed in the "Where-to-Buy-It" section of your phone book. Or write direct.

### Modine

MANUFACTURING COMPANY 1501 DEKOVEN AVENUE . RACINE, WIS. **CUT BUTT MORTISES** 

6 times faster...100% accurate

Just one job can easily pay you back the small cost of the Stanley-Carter Hinge Butt Router and Templet. Cuts a smooth, perfectly flat butt mortise at least six times faster than hand operation . . . up to 75 doors and jambs a day. Doors hang perfectly with uniform opening on all sides. No recutting, shims or hinge driving. The job is perfect . . . and permanent.

Depth of cut adjusted by turning motor in base ... one turn for  $\frac{1}{16}$ ", half turn for  $\frac{1}{32}$ " and quarter turn for  $\frac{1}{64}$ ". Templet fits any size door and reverses to fit jamb.

There's extra money for you in this Stanley-Carter Hinge Butt Equipment. Write today for complete information. Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle Street, New Britain, Connecticut.



HARDWARE · HAND TOOLS · ELECTRIC TOOLS

# How to be <u>Sure About Costs</u> When You Estimate a Building Job

THE SIMPLE TAMBLYN SYSTEM OF ESTIMATING REDUCES BUILDING MATERIALS and LABOR COSTS TO EASY-TO-USE FACTORS!

Do you get that creepy feeling about your estimates? Why take a chance when you can be sure! Just multiply by our simple factors to determine your labor and material costs. The Tamblyn System is simple, fast, accurate, complete and dependable!

#### YOU MAY SAVE MANY TIMES ITS LOW COST IN ONE USE!

In order to get your share of profitable building contracts, you must be able to figure jobs fast and accurately. You must be sure your estimate is just right—low enough to get the job—high enough to give you a reasonable profit.

#### USED BY SUCCESSFUL CONTRACTORS FOR OVER 40 YEARS!

Many of the largest and most successful contractors in the United States and Canada—thousands of them—have used the Tamblyn System of estimating. It is tried and tested—it has been used for more than 25 years. Forty years of experience in construction and building is behind it. And you can study the system for 10 days without cost.

TEST THE TAMBLYN SYSTEM IN YOUR OWN OFFICE WITHOUT OBLIGATION Send the coupon below for your complete Tamblyn System. Examine it in the privacy of your own home or office for 10 days. Try it on new jobs—check it against completed jobs. There is no obligation unless

SEND NO MONEY—TRY IT FOR 10 DAYS FREE! THE TAMBLYN SYSTEM, JOHNSON BLDG., A-20, DENVER, COLO

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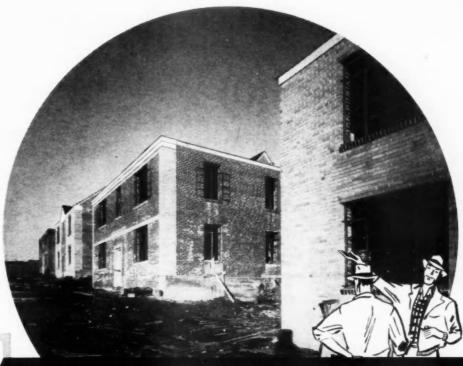
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SPEED COMPLETION

STEEL OR ALUMINUM

# American Home CASEMENT WINDOWS PREFABRICATED COMPLETE WITH WOOD SURROUND

- More exclusive features than any other window on the market.
- Nationally advertised for consumer acceptance.
- Quickly, cheaply, installed in frame, brick-veneer or brick construction.
- Harmonizes with any architectural style.
- The only metal casements designed for outside metal storm sashing.
- Rotary operator opens and closes with a twist of the wrist.
- Safely attached inside screens are interchangeable. No marking for storage — no painting neccessary.
- Permanently weather-tight, cannot swell, shrink, warp, rattle or stick. Keeps heat in and weather out.

THE MODERN WINDOW FOR MODERN HOMES Shorten the time from "out-go" to income in residential building by using American Home prefabricated packaged metal casements. Manufactured complete with wood surround by economical assembly-line methods in a modern plant, these new wonder windows cut time-consuming on-job operations to the minimum.

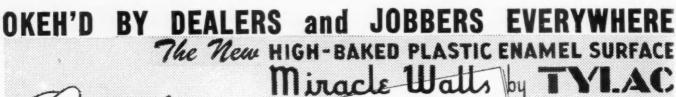
So simple to install any semi-skilled workman can complete the job in five minutes time. And *American Home* Casements give you a better-built house with greater sales appeal. Try them in a current job and see what a difference they make.

Stocked and sold by better Building Supply Dealers everywhere. Write today for descriptive folder. Mesker Brothers, Sales Div. AB88, 4342 Geraldine, St. Louis 15, Mo.

**SINCE 1879** 

Mesker Windows

RESIDENTIAL . COMMERCIAL . INDUSTRIAL





Our dealers and distributors everywhere tell us that sales have been greatly increased and profits stepped up accordingly with the New, Hi-baked, Plastic Enamel Surface, Miracle Walls by TYLAC. There's a reason — instant eye appeal, plus beauty, plus lasting quality. Miracle Walls by TYLAC are a composite of every superior feature in prefabricated wall board manufacture.

Our new, liberal sales, advertising and dealer helps plan will help you in widening your avenues of sales for greater profit. Write us today for full information.

THE GREATEST POST-WAR DEVELOPMENT IN THE INDUSTRY

MONTICELLO, ILLINOIS PIONEERS IN THE PREFABRICATED WALL PANEL INDUSTRY

#### How to estimate construction costs -quickly

-accurately

A handy guide to safer, more profitable bids

REVISED 2nd EDITION

By H. E. Pulver

653 pages, scores of tables, \$6.00

#### CHAPTERS

- 1. Estimating in General
  2. Handling and
- Transporting Materials

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  Masonry
  Dampproofing and o. Masonry
  7. Dampproofing and
  Waterproofing
  8. Wood Construction
  9. Structural Steel
  10. Roofing and
  Flashing
  11. Lathing and
  Plastering
  12. Heating and Air
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  17. Construction Plant
  and Equipment
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  Profit
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- 20. Approximate Estimates
- 21. Construction Management

Here's a reliable working guide that covers every element . . . from excavation to installation of fixtures . . . to be considered in hidding for a construction job. It includes step-by-step procedures for computing accurate estimates on concrete work, steel, plumbing, electrical installation . . . any kind of construction you're apt to meet in modern building plans. Practical examples of estimates worked out in detail demonstrate how to apply the methods outlined. Scores of tables, and diagrams make this book an on-the-job reference for both professional and beginner.

#### 10 DAYS' FREE EXAMINATION

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Send me Pulver's CONSTRUCTION ESTI-MATES AND COSTS for 10 days' examination on approval. In 10 days I will remit \$6.00, plus few cents postage, or return book postpaid. (We pay postage on cash orders)

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Company

Position ABB-8-48

WITH Scotts IS BEST

Plan now to complete the grading on your building projects and get lawns seeded this Fall — any time after August 15. Nature's ideal growing conditions develop lawns in just a few weeks, especially if you use Scotts Lawn Care Products. For all the facts about the advantages of Fall seeding and other practical lawn building tips, write today for a complete 3 ring file of



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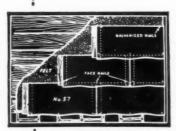
# K & M "Century." ASBESTOS-CEMENT SIDING

K&M No. 57 Shell White Siding was applied over old wood clapboard to give this home a brand-new appearance.





Wavy buttline style supplied in two colors: Shell White and Graytone.



Staggered vertical joint application details. Shingles are butted vertically, laid parallel to water table, with  $1\frac{1}{2}$ " headlap.



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#### · ATTRACTIVE

#### · DURABLE

#### .. AND PROFITABLE FOR YOU

Beauty with simplicity . . . plus down-to-earth values such as fire resistance, long life, freedom from maintenance . . .

That's what you give your customers when you specify "Century" Asbestos-Cement Siding. "Century" Siding has an expertly grained, weathered finish . . . deep shadow lines . . . pleasing color which endures through the worst kind of weather. It won't crack or curl, never needs painting, and is much too tough for rodents and termites.

From your point of view, "Century" Siding is profitable. Not only does it have the sales features mentioned above, but its large 24" size makes it easy for workmen to apply. You can use it for the new homes you're planning... or apply it over existing siding on remodeling jobs. Either way, it's good business for you. Your K&M Dealer can give you further details on "Century" Asbestos-Cement Siding.

Original manufacturers of Asbestos-Cement Shingles in this Country.

KEASBEY & MATTISON
COMPANY · AMBLER · PENNSYLVANIA

ILLINOIS ZINC's



NOW ...

A PERMANENT ALLOY . Sheet metal you can get Now. High grade zinc alloyed for greater tensile strength. Lower cost than copper. Weather resistant. Won't red rust. Used and lasts for years. Good working properties. EASILY SOLDERED AND FORMED. Write for full details.

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- Corrugated Roofing Siding
  - Gutters
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MEETS FEDERAL **SPECIFICATIONS** 





Compare these features with any others.

- 7/16" tip
- Clearly etched graduations both sides of blade
- Lever brake-no creeping blade
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- 6 or 8 ft. lengths
- Direct reading inside measure
- Chrome plated steel case—no rough edges





#### PREVENTS SMOKY FIREPLACES

The Superior is a high form and a perfect guide which guarantees proper construction of the most important part of the fireplace-THE THROAT.

Superior Dampers are constructed of heavy boiler plate iron for lifetime service.

Cracking of masonry eliminated by the use of a blanket of rockwool shipped with each Form Damper.

Dealers and Distributors write for information

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## for Suspended Ceilings

Here's the new system for suspended ceiling construction that gives you a similar type of rigidity to that provided by nail-on ROCKLATH plaster base. It's adaptable, economical, easy to install, and locks like a screen door hook!

An exclusive development of U·S·G research, the BRACE-TITE Lathing System requires only standard tools, and does not require special training of lathers or plasterers. Standard channels, hot or cold-rolled, and conventional 12-inch or 16-inch spacing are used. U·S·G provides all the materials for the complete BRACE-TITE System... U·S·G has sole product responsibility.

BRACE-TITE is an economical system, because the material cost is low—installation expense is held to a minimum.

This suspended ceiling system requires just ½ inch of plaster—applied in just two coats! You can double back! The assembly will be strengthened, because it's wire reinforced with BRACE-TITE Field Clips.

Ask your U-S-G representative about the BRACE-TITE Lathing System next time you see him . . . and be sure to request a copy of the new BRACE-TITE folder.

\*T. M. Reg. U. S. Pat. Off. for a USG plaster base



## United States Gypsum, Chicago 6

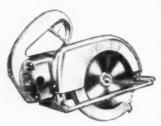
For Building . For Industry

Gypsum · Lime · Steel · Insulation · Roofing · Paint



After you experience the ease and speed with which a Mall-Saw cross-cuts, rips or bevel cuts rough or dressed lumber you will never be satisfied with any other way of sawing. The MallSaw's quick, accurate cuts assure square board ends, better fitting members and a better building.

Your MallSaw will also cut metal and composition materials with a friction blade, hardened steel, glass, tile, por-celain and concrete with an abrasive blade, All three models operate from any regulator 115-volt AC:DC or 130-volt AC: DC outlet, are quickly adjusted for depth, and bevel cut to 45 degrees. Available with metal carrying case, lubricant, cord and plug.



Model 70-21/4" capacity 71/4" blade

Model 86—278" capacity 81/2" blade

4½" capacity 12" blade Model 128-

Write for FREE Booklet "Mall Portable Power Tools" and name of nearest dealer.



Preferred by Master Craftsmen

## HOW TO GET RID OF EXHAUST GAS FUMES IN GARAGE BUILDINGS

INEXPENSIVE SOLUTION TO A SERIOUS GARAGE VENTILATION PROBLEM

For the garage owner planning a new building or extensive remodeling, National has designed and engineered an underfloor System for effective removal of poisonous carbon monoxide gas and smoke. The National Underfloor System is completely fabricated at factory and is shipped complete with motor and blower in a packaged kit—nothing else to buy. A proven, adequate, dependable system—National has many hundreds of installations in garages in every part of the country. Send us your floor plans and specifications. We will gladly supply scaled drawings of our equipment. Literature on request.

Illustration shows standard kit with four extra tube outlets.

complete packaged kit, F.O.B. Decatur



Write for circular

The National System of Garage Ventilation

Dept. 816-U, 330 N. Church Street,

World's largest manufacturer of exclusive garage ventilating equipment,

# TO ANCHOR TUBS SECURELY GERS



The simple, economical metal support that anchors tub securely to the wall. TITEWALL bath tub hangers SAVE MONEY, SAVE TIME in installation. Easily installed by any building tradesman.

TITEWALL hangers prevent cracks at tub rim. Tub is kept snug and firm against wall at all times. TITEWALL hangers can be fastened to furring strip, studding, or flat walls. Packed 4 hangers in a box with wood screws. Tests indicate each hanger will easily hold more than 500 peoples. 500 pounds.

SEND FOR FREE LITERATURE TODAY!

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Address:

State:

# SAVE CONSTRUCTION DOLLARS

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# TAVART

GARAGE DOOR HARDWARE







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HALF-OPEN

OPEN

#### EASILY INSTALLED

Tavart is selling faster nationwide because Tavart saves money, saves time, saves space on any overhead door installation.

Tavart is easily installed by only one man. It's all on the jamb...no tracks, no weights, no pulleys...nothing to attach to side walls or ceilings.

Tavart pleases owners with its easy up, trouble-free operation. Tavart is steel throughout, built to last a lifetime.

There's a Tavart model for home, industry and farm. Overhead clearance from 3" to 14". If a door goes up and over it does it easier with Tavart

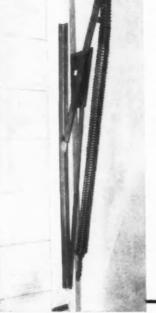
distributed by leading hardware jobbers

Order Through Your Favorite Building Material Dealer



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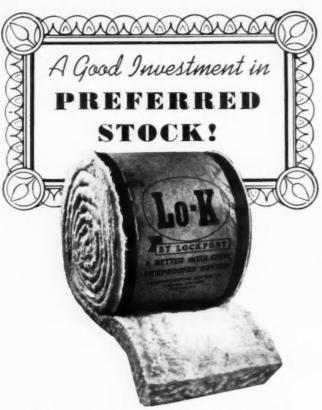
SINGLE HOMES RESIDENTIAL TRACTS INDUSTRIAL FARM BUILDINGS



IT'S ALL ON THE JAMB

- · NO TRACKS
- NO WEIGHTS
- . NO PULLEYS

There's A TAVART Model For Every Purpose



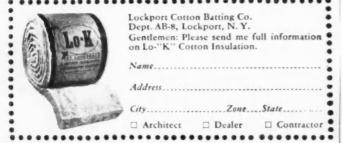
Whether you're an architect, contractor or dealer, Lo-"K" is a gilt-edge investment in prestige and profit.

Note these Lo-"K" highlights:

- Insulates from 4 to 36% more efficiently.
- Le Can save up to 30% on fuel bills.
- Le Cuts installation costs as much as 40%.
- Flameproofed - long-lasting - resists moisture, rot and vermin. Will not sag or settle.
- Non-irritating to skin—important to builders and applicators.
- Nationally advertised, profitably priced, backed by 78 years of cotton processing experience.

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The champion of small mixers. Built like the world-famous Big Smith Tilters. Equipped with air-cooled or water-cooled engine, fully enclosed, easily accessible. Other features include: simple rope starter, big wide feed chute, fast 'tilt and pour" discharge.





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If you had to, you could drive a nail with a sledge hammer, axe, hatchet, machinist's hammer or possibly even a tack hammer, but of course, you

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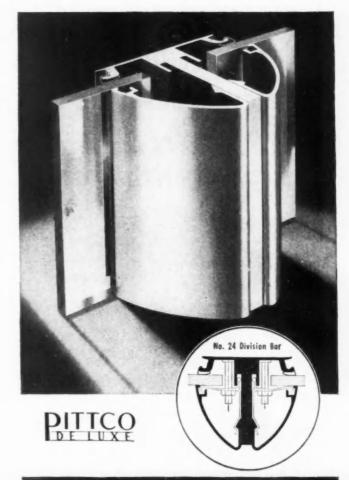
#### ... in both lines of Pittco Metal

• In addition to the two bars shown here, the Pittco line of Store Front Metal features a flush-type division bar for use where you do not want a protruding surface. It can be used with both the De Luxe and Premier lines and may be backed up with five different reinforcing members ranging in weight from light to extra heavy. The two bars shown here can be used alone or with reinforcing steel tubes. From this wide selection of sturdy supporting members, you can easily satisfy all ordinary structural requirements for vertical bars in modern store front work. Where unusual conditions demand spe ial supporting members, our engineers will gladly help in their design.

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ZONOLITE\* VERMICULITE

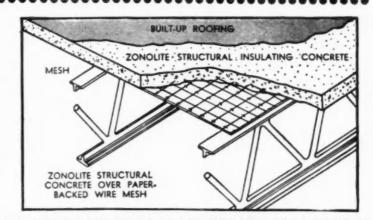
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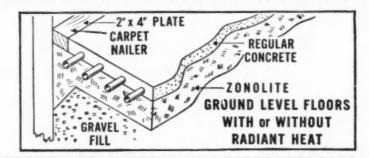
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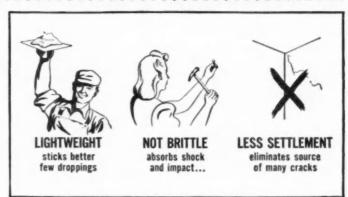


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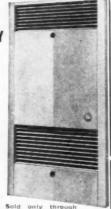
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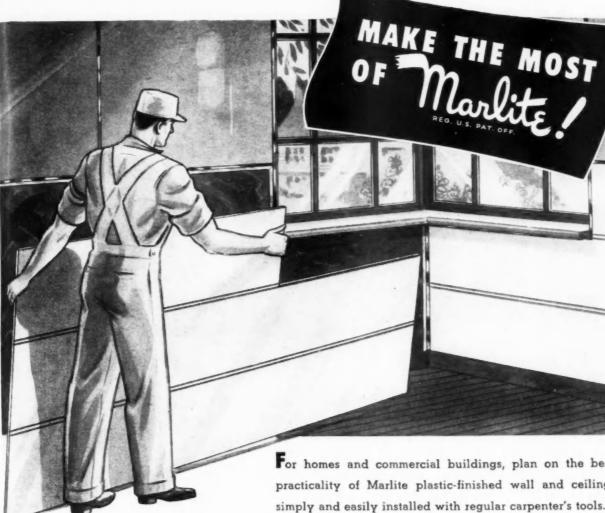
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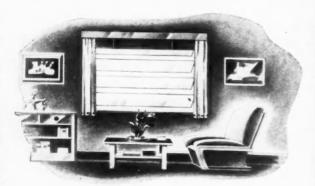
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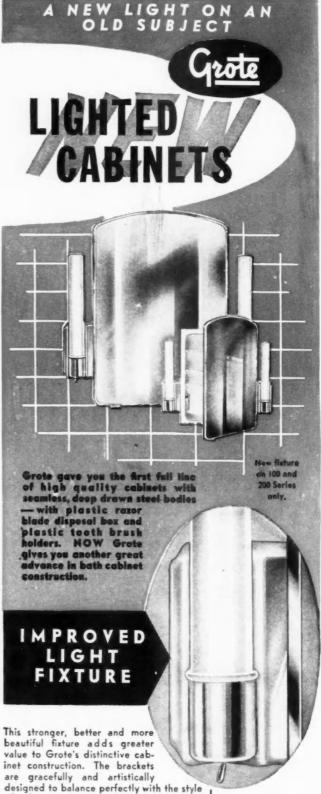
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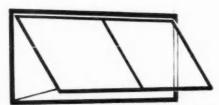
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Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         22           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Clipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         214           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery Co.         204           Continental Radiant Glass Heating Corp.         162           Contractors Pump Bureau         199           Crane Co.         153           Crawford Corporation         216           Croft Steel Products, Inc.         218           Curris Companies Service Bureau         1+15           Delta Mfg. Division, The         174           Detroit Steel Products Company         3-138B           Devoe & Raynolds Company, Inc.         32           Dodge Division, Chrysler Corporation         30           Do Al	Macklanburg-Duncan Co.   35	Tamblyn System	19 19 19 19 19 19 19 19 19 19 19 19 19 1
Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         22           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Clipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         214           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery Co.         204           Contractors Pump Bureau         190           Crane Co.         153           Crawford Corporation         216           Croft Steel Products, Inc.         218           Curris Companies Service Bureau         1+15           D         Delta Mfg. Division, The         1-74           Detroit Steel Products Company         3-138B           Devee & Raynolds Company, Inc.         32           DeWalt, Inc.         67           Dodge Division, Chrysler Corporation         30           Du All Scaffo	Macklauhurg-Duncan Co.   35	Tamblyn System	19 19 14 19 19 19 19 19 19 19 19 19 19 19 19 19
Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         22           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Cipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         214           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery Co.         204           Continental Radiant Glass Heating Corp.         162           Contractors Pump Bureau         190           Crane Co.         153           Crawford Corporation         216           Craft Steel Products, Inc.         218           Curris Companies Service Bureau         1+15           Delta Mfg. Division, The         174           Detroit Steel Products Company         3-138B           Devoe & Raynolds Company, Inc.         32           Devale Division, Chrysler Corporation         30           Du Al	Macklauburg-Duncan Co.   35	Tanddyn System	19 20 14 4 3 19 16 18 2 2 1 15 20 20 18 8 6 6
Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevolet Motor Division         159           Chicago Tribune         2           Chysley Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Cipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         214           Coleo Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery Co.         204           Continental Radiant Glass Heating Corp.         162           Contractors Pump Bureau         190           Crawford Corporation         216           Crawford Corporation         218           Curris Companies Service Bureau         1+15           D         15           Detroit Steel Products Company         3-138B           Devoc & Raynolds Company, Inc.         32           DeWalt, Inc.         67           Dodge Division, Chrysler Corporation         30           DuRrack Mfg. Co.         220           E           Eagle In	Macklanhurg-Duncan Co.   35	Tamblyn System	199 200 144 222 144 319 1166 1182 119 1188 119 1188 119 1188 119 1188 119 1188 1198 11
Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         2           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Clipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         21           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery & Supply Co., Ltd.         18           Contractors Pump Bureau         190           Crawford Corporation         216           Crawford Corporation         216           Craft Steel Products, Inc.         218           Curris Companies Service Bureau         1+15           D         Delta Mfg. Division, The         174           Detroit Steel Products Company, Inc.         32           DeWalt, Inc.         67           Dodge Division, Chrysler Corporation         30           Du All Scaffold Bracket Company         210	Macklauburg-Duncan Co.   35	Tamblyn System	199 14 14 3 199 14 14 3 199 14 15 16 18 2 19 18 18 19 15 15 17 18 18 19 19 18 18 18 19 19 18 18 18 18 18 19 19 18 18 18 18 18 18 18 18 18 18 18 18 18
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Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         2           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Clipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         21           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery & Supply Co., Ltd.         18           Contractors Pump Bureau         190           Crawford Corporation         216           Crawford Corporation         216           Craft Steel Products, Inc.         218           Curris Companies Service Bureau         1+15           D         Delta Mfg. Division, The         174           Detroit Steel Products Company, Inc.         32           DeWalt, Inc.         67           Dodge Division, Chrysler Corporation         30           Du All Scaffold Bracket Company         210	Macklanhurg-Duncan Co.   35	Tamblyn System	199 14 3 2 2 4 4 3 3 9 1 9 1 8 8 2 9 1 9 1 8 8 2 9 1 9 1 8 8 2 9 1 9 1 8 8 2 9 1 9 1 8 8 2 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9
Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         22           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Chipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         214           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery Co.         204           Continactors Pump Bureau         190           Crane Co.         153           Crawford Corporation         216           Croft Steel Products, Inc.         218           Curris Companies Service Bureau         14-15           D         Delta Mfg. Division, The         174           Devoe & Raynolds Company, Inc.         32           Devalt Inc.         67           Dodge Division, Chrysler Corporation         33           Du All Scaffold Bracket Company         20           E         <	Macklauhurg-Duncan Co.   35	Tamblyn System	1920 144 142 143 143 144 144 144 144 144 144 144 144
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Ceo Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         22           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Clipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         168           Commercial Trades Institute         214           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery Co.         204           Continactors Pump Bureau         190           Crane Co.         153           Crawford Corporation         216           Craft Steel Products, Inc.         218           Curris Companies Service Bureau         1+15           D         Delta Mfg. Division, The         174           Detroit Steel Products Company         3-138B           Devee & Raynolds Company, Inc.         32           DeWalt, Inc.         67           Dodge Division, Chrysler Corporation         30           Du All Scaffo	Macklauhurg-Duncan Co.   35	Tamblyn System. Taylor Bedding Mfg. Co. 2 Taylor Mannfacturing Co. 1 Thorn Company, J. S. 2 Thrush & Co., H. A. 1 Tiletone Company Titewall Hanger Company Titewall Hanger Company Trade-Wind Motorfans, Inc. 1 Tri-States Building Materials Co. 1 Triscon Steel Company. Turner & Seymour Mfg. Co., The 1 Tuttle & Bailey, Inc. 1 Tuttle & Bailey, Inc. 1 Tuttle & Bailey, Inc. 1 Tuttle & States Gypsum Company United States Gypsum Company United States Plywood Corporation United States Plywood Corporation United States Steel Corporation Subsidiary Universal Atlas Cement Company Upson Company, The V Vento Steel Products Company, Inc. 1 W Wagner Manufacturing Co. 2 Wallace & Co., J. D. 2 Wappat, Inc., Fred W. 1 Waterfilm Boilers, Inc. Weatherproof Products Corp., The 2 Western Pine Association Westinghouse Electric Corporation White Company, David. 2 Wirthington Pump and Machinery Corporation Wurdack Chemical Co. 1 Wurdack Chemical Co. 1	1920 144 142 143 143 144 144 144 144 144 144 144 144
Cero Steel Products Corporation         20           Celotex Corporation, The         2           Chase Brass & Copper Co.         181           Chevrolet Motor Division         159           Chicago Tribune         22           Chrysler Corporation         30-175           Cincinnati Iron Fence Co., Inc.         212           Clipper Mfg. Co., The         156           Coffman Co., Inc., The R. G.         106           Commercial Trades Institute         214           Coleman Company, Inc., The         11           Conco Engineering Works         39           Consolidated Machinery & Supply Co., Ltd.         18           Construction Machinery Co.         204           Continental Radiant Glass Heating Corp.         162           Contractors Pump Bureau         190           Crane Co.         153           Crane Co.         153           Crane Co.         215           Curris Companies Service Bureau         1+15           D         Delta Mfg. Division, The         174           Detroit Steel Products, Inc.         22           Curris Companies Service Bureau         1+15           Devoc & Raynolds Company, Inc.         32           DeWalt, Inc.	M  Macklauhurg-Duncan Co	Tamblyn System	1920 144 143 143 143 144 144 145 145 145 145 145 145 145 145
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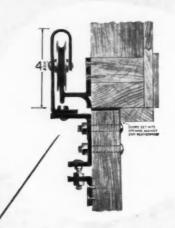
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